#### U.S. ENVIRONMENTAL PROTECTION AGENCY

# TECHNICAL ENFORCEMENT SUPPORT AT HAZARDOUS WASTE SITES

#### TES X

#### CONTRACT NO. 68-W9-0007 WORK ASSIGNMENT NO. RO5043

INTERIM FINAL
PRELIMINARY REVIEW/VISUAL SITE INSPECTION (PR/VSI) REPORT
FOR
RCRA FACILITY ASSESSMENT (RFA)
AT
DESIGN ORIGINAL, INC.
JACKSON CENTER, OHIO
OHD 063 989 545

U.S. EPA REGION V

METCALF & EDDY, INC. PROJECT NO. 153043-0009-626

WORK PERFORMED BY:

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**SEPTEMBER 1993** 

#### TABLE OF CONTENTS

			<u>Page</u>		
EXE	CUTIV	E SUMMARY	i		
1.0	INTRODUCTION				
210	1.1	Background			
	1.2	Permit History			
	1.3	Enforcement History			
	1.4	Project Description and Report Format	8		
2.0	GEN	VERAL DESCRIPTION OF FACILITY AND PROCESSES	. 0		
	2.1	Facility Location and Operation.	9		
3.0	ENV	ENVIRONMENTAL SETTING.			
	3.1	Geology			
	3.2	Hydrogeology	11		
	3.3	Climate/Meteorology	11		
	3.4	Pollutant Releases into Groundwater  3.4.1 Monitoring Data	12		
		3.4.1 Monitoring Data	12		
		3.4.2 Potential Receptors	12		
	3.5	Pollutant Releases into Surface Water	13		
		3.5.1 Monitoring Data	13		
		3.5.2 Potential Receptors	13		
	3.6	Pollutant Releases into Air	13		
		3.6.1 Monitoring Data	13		
	•	3.6.2 Potential Receptors	13		
	3.7	Pollutant Releases into Soils.	13		
	-	3.7.1 Monitoring Data			
		3.7.2 Potential Receptors	14		
	3.8	Releases of Gaseous Pollutants into Subsurface Soils	14		
		3.8.1 Monitoring Data	14		
		3.8.2 Potential Receptors	16		
4.0	DES	CRIPTION OF SOLID WASTE MANAGEMENT UNITS (SWMUs)	16		
1.0	4.1	Unit Type: Dumping Site of Screen Cleaning Waste	10		
	4.2	Unit Type: Dumpster Area	17		
	4.3	Area of Concern: Present Disposal of Waste	17		
5.0	SUN	· MMARY AND RECOMMENDATIONS			
6.0		ICLUSIONS			
BIBI	LIOGR	APHY	. R.1		

#### TABLE OF CONTENTS (Continued)

	<u>Pag</u>	<u>e</u>			
LIST OF FIGURES					
FIGURE 1	Ohio County Map - Shelby County  Location of Design Originals, Inc.	4			
FIGURE 2 FIGURE 3	Site Map - Solid Waste Management Units	.5 5			
LIST OF TABLES					
TABLE ES-1 TABLE 1 TABLE 2	Current Solid Waste Management Units Summary of Solid Waste Management Units Solid Waste Management Units Summary	7			
LIST OF APPENDICES					
APPENDIX A APPENDIX B APPENDIX C	Visual Site Inspection Photograph Log Copy of Log Book Used During VSI Copy of Profile Sheets				

#### **EXECUTIVE SUMMARY**

At the request of U.S. EPA, Metcalf & Eddy (M&E) initiated a RCRA Facility Assessment (RFA) of Design Original, Inc. in Jackson Center, Ohio. M&E conducted the first two steps in the RFA, the Preliminary Review and the Visual Site Inspection (PR/VSI). The purpose of the PR/VSI is to summarize available information about the site and to assist the U.S. EPA in recommending further steps in the corrective action process.

Design Original, Inc. is located at 402 Jackson Street, Jackson Center, Ohio. The facility manufactures custom printed sportswear using silk screening processes. Design Original was designated a Land Disposal Facility because of its hazardous waste disposal activities, which included illegal dumping of toluene at the facility site.

A VSI was conducted on August 30, 1990, following review of U.S. EPA and Ohio EPA files. Two Solid Waste Management Units (SWMUs) and one Area of Concern (AOC) were identified at the facility (Table ES-1). These SWMUs were the known dump site containing silk screen cleaning wastes (other possible dumping areas have not yet been identified), and the dumpster area used to dispose of spent rags and containers, located in the same vicinity as the dump site. The present disposal of waste is considered an Area of Concern because the waste has not yet been characterized. Some of the wastes (e.g., haze remover, ink, Aeroflex Bio-wash) are collected in pails and placed in a 55-gallon drum. This drum had never been emptied at the time of the VSI. The spent rags are put in the dumpster and any other material is either put in the dumpster and/or washed down the drains.

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# TABLE ES-1

# DESIGN ORIGINAL, INC. CURRENT SOLID WASTE MANAGEMENT UNITS

Solid Waste Management Unit  Dump Site of Silk Screen Cleaning Waste  Dumpster Area  Possibly October 1984 to September 1987 to September 1988 to September 1988 until Present Unitil Present	Dates Release History	Possibly October 1984 1987 to September 1987	r 1984 Possibly October 1984 1988 to September 1987	988 Unknown at
<b>≱</b>				

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SMWUs and Areas of Concern identified during the PR.

### PRELIMINARY REVIEW/VISUAL SITE INSPECTION (PR/VSI) REPORT RCRA FACILITY ASSESSMENT (RFA)

**FACILITY NAME:** 

DESIGN ORIGINAL, INC.

402 JACKSON STREET, JACKSON CENTER, OHIO 45334

LATITUDE:

40° 26' 57"

LONGITUDE:

84° 01' 57"

SITE CONTACT:

FRANK PUSEY

PHONE #:

(513) 596-5121

EPA ID#:

OHD 063 989 545

#### 1.0 INTRODUCTION

This section of the RCRA Facility Assessment (RFA) report covers the purpose and scope of the RFA process. It also describes the other sections in this report.

#### 1.1 Background

This report was prepared by Metcalf & Eddy, Inc. (M&E) under the Technical Enforcement Support (TES) X contract at the request of the United States Environmental Protection Agency (U.S. EPA) Region V. It describes the Preliminary Review (PR) of file material for the Design Original, Inc. facility and the Visual Site Inspection (VSI) of the facility. These are the first two steps in conducting a Resource Conservation & Recovery Act (RCRA) Facility Assessment (RFA). The RFA is the first phase of the RCRA corrective action program and consists of a PR, VSI, and, if appropriate, a sampling visit (SV). The purpose of this report is to summarize available information about the site and to assist the U.S. EPA in recommending further steps in the corrective action process.

The 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) provide new authorities for the U.S. Environmental Protection Agency (EPA) to compel owners and operators of hazardous waste treatment, storage, and disposal facilities to take corrective actions for releases of hazardous wastes and hazardous constituents. These authorities apply to releases at facilities subject to the permitting requirements of RCRA Section 3005(e) and at facilities applying for RCRA permits. These amendments require EPA to address the

need for corrective action for previously unregulated releases to air, surface water, soil, and groundwater, and to address the generation of subsurface gas. Section 3004(u) of RCRA allows EPA to require corrective actions after permit issuance through a schedule of compliance. Section 3008(h) allows EPA to require corrective actions through an enforcement action.

This report summarizes file information and observations made during the VSI related to releases of hazardous waste at Design Original, Inc. facility located in Shelby County, Ohio (see Figure 1). Releases into all media are considered, including groundwater, air, surface water and soils, and subsurface gas releases. All areas of potential release are considered, but the focus is on SWMUs.

A Solid Waste Management Unit (SWMU) is defined as any discernable unit where solid wastes have been placed at any time from which hazardous constituents might migrate, regardless of whether the unit was intended for the management of a solid or hazardous waste.

#### The SWMU definition includes the following:

- RCRA regulated units, such as container storage areas, tanks, surface impoundments, waste
  piles, land treatment units, landfills, incinerators, and underground injection wells.
- Closed and abandoned units.
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units.
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents, such as wood preservative treatment dripping areas, loading or unloading areas, or solvent was hing areas.

An Area of Concern (AOC) is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a non-routine or non-systematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The list and description of the SWMUs and AOCs in the report may not be all inclusive. Furthermore, the fact that a SWMU was not identified in the report does not affect U.S. EPA's authority for corrective action for SWMUs which may not be contained in the report.

The central purpose of an RFA is to identify releases or potential releases requiring further investigation. According to EPA's RFA Guidance Document, the four purposes of an RFA area as follows:

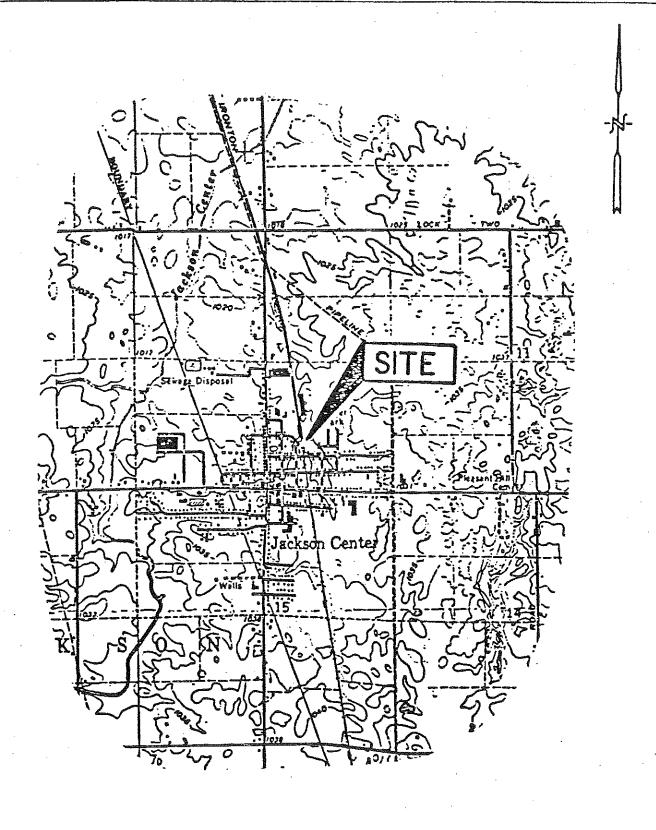
- 1. To identify and gather information on releases at RCRA-regulated facilities.
- 2. To evaluate SWMUs and other AOCs for releases to all media and to evaluate regulated units for releases to media other than groundwater.
- 3. To make preliminary determinations regarding releases of concern and the need for further actions and interim measures at the facility.
- 4. To screen from further investigations those SWMUs that do not pose a threat to human health and the environment.

Design Original, Inc. is a silk screen printing company located at 402 Jackson Street, Jackson Center, Ohio in Shelby County (see Figures 1 and 2) (10). The company is owned by Frank Pusey and employs approximately 18-20 people. Design Original has utilized toluene, sodium hydroxide, and ink in its printing process (2). The facility generates small quantities of waste, and no longer uses toluene. Proper characterization of the waste has not yet been reported to the U.S. EPA or Ohio Environmental Protection Agency (Ohio EPA). If the industrial process wastes generated are hazardous, the facility generates this waste at a rate equivalent to that of a Conditionally Exempt Small Quantity Generator (less than 100 kilograms per month) (8). If the industrial process wastes generated are nonhazardous, then the facility is not a generator.

Samples from 55-gallon drums and buckets indicated the presence of toluene and sodium hydroxide, both potentially hazardous wastes. A soil sample taken at the alleged disposal area contained elevated levels of toluene (4), the only contaminant found to be present. The reported toluene concentration in that sample was 4.7 percent (19).

ERM-Midwest, Inc. was hired to develop and prepare a contamination assessment plan for the facility. Although it has been documented that dumping occurred in the area adjacent to the west side of the facility, it is unknown if dumping also occurred elsewhere in the vicinity of the facility. During February 1990, ERM collected samples in the alleged disposal area. Soil samples taken at a depth of 0 to 10 inches exhibited toluene contamination of 86 mg/kg on a dry weight basis. ERM developed and submitted an assessment plan to OEPA based on





Not to Scale



Location of Design Originals, Inc. Jackson Center, Ohio

Source: Jackson Center Quadrangle, 7.5 Minute Series

Project Number 150043-0009-626

Figure 2

eyewitness reports of spilling activity. Sample coverage was limited by Mr. Pusey's available financial resources.

M&E performed a review of the Design Originals, Inc. files at the OEPA offices located in Dayton, Ohio, and of the U.S. EPA Region V RCRA files located in Chicago, Illinois. Files at the Air Pollution Group of the Portsmouth City Health Department were also reviewed. One SWMU, (Dumping Site), and one Area of Concern, (Present Waste Disposal Area) were tentatively identified based on the file review.

M&E performed the VSI on August 30, 1990 to verify the existence of the SWMU and to identify any other possible SWMUs or Areas of Concern. The M&E inspection team consisted of Lisa Allinger (Senior Environmental Scientist) and Steven Hulett (Geologist). Inspection personnel were met by Frank Pusey, President of Design Original, Inc., and Doug Wagner, Senior Project Geologist, of ERM-Midwest, Inc. Based on the VSI, only one additional SWMU, (Dumpster Area), was added to the one SWMU already identified (see Table 1). An Area of Concern identified during the PR pertains to both how the waste is presently collected (a one gallon plastic bucket with a lid is used as needed until full and then is placed into a 55-gallon drum) and how it will eventually be disposed of. However, the currently generated wastes (e.g., haze remover, ink, Aeroflex Bio-wash) have not been determined to be hazardous substances (toluene is no longer used).

#### 1.2 Permit History

No Part A or Part B permits have been submitted for this facility. Design Original is considered a Land Disposal Facility.

#### 1.3 Enforcement History

Design Original, Inc. was indicted on 34 criminal charges of violating Ohio hazardous-waste laws on September 27, 1988. Multiple indictments were issued against four company officials and 9 indictments were issued against the corporation. The corporation and four officials were scheduled to be arraigned in Shelby County Common Pleas Court on October 6, 1988, on charges that included illegal disposal of hazardous waste. The charges were initiated by the Ohio EPA and the Attorney General's Office (AGO) as evidence became available of illegal disposal of toluene on the Design Original, Inc. property (4). Evidence was initially obtained from a former employee of the facility on September 14, 1987 (1). Additional evidence was obtained on September 17, 1987 when personnel from Ohio EPA's Surveillance and Enforcement Section (now the Inspection and

TABLE 1

# DESIGN ORIGINAL, INC. SUMMARY OF SOLID WASTE MANAGEMENT UNITS

Unit Name	Regulatory Status Before VSI	i <u>us</u> After VSI
Dump Site of Silk Screen Cleaning Waste	SWMU	SWMU
Dumpster Area	Unknown	SWMU
Present Disposal of Waste	Area of Concern	Area of Concern

Enforcement Program) and the Attorney General's Bureau of Criminal Investigation, along with a Shelby County Deputy, executed a criminal search warrant at Design Original for the purpose of obtaining samples confirming the presence of the hazardous waste.

Design Original, Inc. was designated a Land Disposal Facility because of its hazardous waste disposal activities (9). The Ohio EPA performed an inspection on September 7, 1989 to determine the status and compliance of the facility with Ohio's Hazardous Waste Rules. The results of this inspection indicated that Design Original, Inc. was in violation of several Rules of the Ohio Administrative Code (13 and 14). Violations included failure to submit a Part A application, waste analysis and waste analysis plan, inspection plan, contingency plan, operating record, annual report, closure plan, post-closure plan, landfill requirements and lack of personnel training and security. The inspection also helped to complete a Comprehensive Ground Water Monitoring Evaluation (CME), which is intended to determine a facility's compliance with applicable groundwater monitoring requirements. A CME of Design Original, Inc. was produced by the Ohio EPA on September 27, 1989 (10) revealing that a groundwater monitoring system does not exist at the facility.

Litigation was brought against Design Original, Inc. Four of its officials pleaded guilty to illegal disposal of hazardous waste and falsification of records (12). Frank Pusey, president of Design Original, Inc., was sentenced to 120 days in the Shelby County Jail and was available for work release by mid-February 1990 (17). Design Original, Inc. contracted outside environmental consulting services to assist in complying with the regulations mentioned (15). Further site evaluation was scheduled to begin in mid-February 1990 when Frank Pusey became available for work release and was physically able to provide assistance (17).

On June 15, 1990, the Ohio EPA informed Design Original, Inc. of its violation in failing to provide costs estimates for closure and post-closure, financial assurance for closure and post-closure care and liability coverage (20). On June 28, 1990, a response was prepared on behalf of Design Original claiming that the facility was not a Treatment, Storage, or Disposal (TSD) facility and that they were working with the district office to agree upon a remediation plan (21).

#### 1.4 Project Description and Report Format

This RFA report consists of six sections and three appendices. The information contained in the report is designed to give the reader a thorough description of site-specific and area conditions at the facility, and to provide information on individual SWMUs and AOCs at the site. The following sections of the report are outlined below.

Section 2.0 describes the facility and its operations by providing general facility information, process information, waste management practices, and regulatory status of SWMUs at the site.

Section 3.0 provides information on the general environmental setting in the immediate area and in the region where the facility is located. The climate, surface water, groundwater, soils, geology, and land use in the vicinity of the site are described in this section.

Section 4.0 presents unit-specific information on SWMUs including: SWMU description, status, waste type(s) and management, evidence of releases, summary of remedial actions, and suggested actions are provided.

Section 5.0 provides a summary and recommendations, including a summary table for all SWMUs and AOCs identified during the RFA.

Section 6.0 provides conclusions including potential for releases for each SWMU and AOC.

Finally, the three Appendices contain the VSI photograph log, a copy of the VSI field logbook, and Material Safety Data Sheets.

#### 2.0 GENERAL DESCRIPTION OF FACILITY AND PROCESSES

Section 2 includes a general description of the facility, its processes, and the environmental setting of the facility. A discussion of pollutant releases to the groundwater, surface water, air, soil and subsurface gases, and available monitoring and potential receptors is included.

#### 2.1 Facility Location and Operation

Design Original, Inc. is a silk screen printing company located at 402 Jackson Street, Jackson Center, Shelby County, in west central Ohio (see Figure 2) (10). Known process materials are sodium hydroxide and ink. Known waste materials are haze remover, ink liquids sludges and spent filters (4). The facility generates a very small quantity of these wastes which have not yet been properly characterized. The amount of waste generated is equivalent to a Conditionally Exempt

Small Quantity Generator (less than 100 kilograms per month) (8). The facility no longer uses toluene in its processes. This toluene waste still remains where it was dumped on-site.

#### 3.0 ENVIRONMENTAL SETTING

Design Original is located in a residential/commercial area surrounded by a rural agricultural setting. The Village of Jackson Center, where the facility is located, has a population of approximately 1,310 residents (29).

This section describes the environmental setting of the Design Original, Inc. facility including a description of the geology, hydrogeology, and climate/meteorology of the west central Ohio area in which it is located.

#### 3.1 Geology

Jackson Center, Ohio is located in the Till Plains section of the Central Lowlands Province, with slight to moderate topography. Runoff in this locality drains into the Upper Great Miami River Basin. The topography of Shelby County is characterized by broad, level to moderately steep till plains and moraines, which are dissected by the Great Miami River and its tributaries. Generally the topography is gentle; however, along stream valleys and deposits of kames and moraines, slopes are steep and irregular. The highest point in Shelby County, found in its southeast corner, is 1150 feet above sea level; and the lowest point, located in south central Shelby County, is 870 feet above sea level (10).

Design Original, Inc. is situated on the Blount Silt loam soil. This poorly drained soil overlies broad areas on till plains and moraines, with a slope of 0-2 percent. The soil is characterized by a moderately deep root zone, low permeability and a moderate available water capacity. During the winter and spring, the soil typically exhibits a high perched water table (10).

The Wisconsin stage glaciation dominated the glacial deposits left in Shelby County. Only Wisconsin age till and outwash are observed. The only known outcrop of bedrock is a small band of Brassfield Limestone of Silurian Age. West of Jackson Center, the Wisconsin glacier filled in the Teays drainage system with glacial outwash and till. The Teays drainage system was the main system of drainage during the late Tertiary period (10).

The majority of glacial deposits found in Shelby County are till. This material is composed of silty clays with thin silt and sand lenses containing varying amounts of pebbles, cobbles, and boulders. The till cover of eastern Shelby County contains many large boulders and is known as the boulder belt. The Shelby County till was deposited mainly as end and ground moraines. The ground and end moraine deposits overlie a second till which contains pebbles and boulders. These thick strata overlie a thick crossbedded gravelly outwash. The interface between the till and the outwash is the stratigraphic position of what is thought to be a regionally developed paleosol horizon. Below the crossbedded outwash is a thick sandy clayey till which overlies a deeper sand and gravel. The thickness of the outwash deposits narrow with distance from the Great Miami River (10).

#### 3.2 Hydrogeology

The bedrock aquifer is the largest producer in the Jackson Center area. This aquifer is composed primarily of fractured dolomite. The Ohio Department of Natural Resources (ODNR) reports that wells terminated in this water bearing zone can produce more than 150 gallons per minute (10). Although the bedrock aquifer is the largest producing zone, outwash deposits of sufficient size and permeability to provide an adequate supply of groundwater do exist locally. Well logs registered with ODNR showed 13 wells located within one half mile of the Design Original facility (10). Of these 13 wells, only two were completed to bedrock, and the remaining wells were screened in the local sand and gravel deposits. Pumping rates are reported to be between 6.5 and 300 gallons per minute depending upon well construction and depth (10).

Local stratigraphy is glacial till which contains alternating layers of sand and gravel. Strata range in thickness from several feet to tens of feet. Static water levels of the above-mentioned wells were reported to range between 5 and 110 feet, with most of the levels falling between 14 and 22 feet.

#### 3.3 Climate/Meteorology

Jackson Center is located in a humid temperate continental type climate, which favors physical and chemical weathering and biological activity in the formation of soils. The average temperature here is 28 degrees F in the winter and 72 degrees F in the summer (10).

The average total precipitation is 20 inches per year, 55 percent of which occurs between April and September (10). Precipitation in the winter is usually in the form of snow, with an average total accumulation of 36 inches. Though precipitation events are usually moderate, tornadoes and severe thunderstorms occur occasionally, but are usually local and of short duration (10).

#### 3.4 Pollutant Releases into Groundwater

Pollutant releases into groundwater include documented releases reported by facility personnel, and possible undocumented releases of process and waste materials. Documented releases include waste toluene, haze remover and ink material (1, 2 and 4). Other wastes that could have been released include additional toluene, haze remover, ink, sodium hydroxide, sludge and other process and waste materials which may have been released from drums, buckets, silk screens and silk screen cleaning operations (4).

#### 3.4.1 Monitoring Data

No groundwater monitoring wells are present at the Design Original, Inc. facility, and no continuous monitoring data is available. Characterization of the facility's waste and the development of groundwater monitoring wells has been requested by the Ohio EPA, but had not been provided as of the VSI.

#### 3.4.2 Potential Receptors

There are 13 documented residential or municipal drinking water wells located within a half mile radius of the Design Original, Inc. facility. The groundwater flow direction is not known. A determination as to up or downgradient status of these wells has not been made. These wells have reported pumping rates between 6.5 and 300 gallons per minute. The municipal water supply for Jackson Center is obtained exclusively from three wells located approximately 2000 feet south of the intersection of Route 65 and Route 274 (10). These wells appear to be approximately 3000 feet south-southwest of the Design Original, Inc. facility. The 3 municipal water supply wells (1, 2 and 3) were completed to 80, 54 and 186 feet, and pump at rates of 200, 150 and 150 gallons per minute respectively. Not knowing the groundwater flow direction, all 13 wells are potential receptors for contaminants released into the groundwater at the Design Original, Inc. facility. Local undocumented wells, Jackson Center Creek, the Great Miami River, springs, seeps and other surface water bodies may also be potential receptors for contaminants released into the groundwater at the Design Original, Inc. facility (10).

#### 3.5 Pollutant Releases into Surface Water

Potential releases into surface water could result from the outfalls or runoff of process materials or wastes.

#### 3.5.1 Monitoring Data

No monitoring data is available for surface water for the Design Original, Inc. facility.

#### 3.5.2 Potential Receptors

Potential receptors include Jackson Center Creek, the Great Miami River, which has many recreational uses, and the people and biota that come in contact with these waterways. Jackson Center's population was 1,310 in 1980.

#### 3.6 Pollutant Releases into Air

The potential sources of release into the air are vapors from volatile liquids, such as Aeroflex Biowash, paint thinner, haze remover and stencil remover (ICC Product 833 emulsion), which are used in and produced by the facility's process.

#### 3.6.1 Monitoring Data

No monitoring data is available for air releases for the Design Original, Inc. facility.

#### 3.6.2 Potential Receptors

Potential receptors include the 18-20 site employees, local biota and residents of the area.

#### 3.7 Pollutant Releases into Soils

Potential pollutant releases into the soils include waste material from the cleaning of silk screens, which was dumped directly onto the soils (12).

#### 3.7.1 Monitoring Data

Soil samples taken from Design Original, Inc. by Ohio EPA and the Attorney General's Office personnel during a sampling event on September 17, 1987, under a criminal search warrant, contained 47,000 ppm of toluene by weight (2 and 4). These samples were taken from the area where the silk screen cleaning waste was dumped (4). There is no documentation of the exact sampling location. ERM-Midwest, Inc. collected two samples adjacent to the stained western wall of the building in February 1990 to confirm the presence of toluene (19). One sample was taken 2 feet from the stained wall at a soil depth of 0 to 10 inches (Figure 3). Toluene was reported in that sample at a concentration of 86 ppm on a dry weight basis. The second sample was collected approximately one foot from the stained wall and angled toward the wall. The soil depth was 0 to 8 inches. Toluene was reported at a concentration of 18 ppm on a dry weight basis (19).

#### 3.7.2 Potential Receptors

Soil around the facility where screens and screen cleaning waste was dumped is a receptor of the toluene, haze remover, and ink waste material (2 and 4). The biotic community supported by the soil is a potential receptor for the contaminants. Surface water could transport contaminants. Also, the aquifers could become contaminated, thus possibly impacting the people who use the aquifer as a water supply. The area is commercial/residential with a local population of approximately 1,310 (29). There are no fences or barriers to prevent access to the facility.

#### 3.8 Releases of Gaseous Pollutants into Subsurface Soils

Releases of gaseous pollutants into subsurface soils may occur as the toluene, ink compounds, haze remover and other materials in the silk screen cleaning waste that was dumped on the ground infiltrates and volatilizes. The potential for other releases of gases into soils is very low. No soil gas monitoring has been conducted.

#### 3.8.1 Monitoring Data

No soil gas monitoring has been conducted.



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June 24, 2014

#### VIA FEDERAL EXPRESS

Brian P. Freeman U.S. Environmental Protection Agency 77 West Jackson Boulevard, LR-9J Chicago, IL 60604

Re:

Design Original, Inc.'s Response to the U.S EPA's RCRA 3007(a) Information

Request

Dear Mr. Freeman:

Enclosed with this letter is Design Original, Inc.'s ("DOI") response to the United States Environmental Protection Agency's RCRA 3007(a) information request.

On June 25, 1996, Lockwood Laboratories / Springfield Environmental, Inc. and Henry Stonerook, P.E., issued a Final Closure Certification Report which documented the remediation of a single Waste Management Unit (WMU) on the DOI site. The WMU consisted of an unpermitted area outside the west side of the building and adjacent to the building where silk screens were cleaned with toluene prior to 1996. Testing of the soil in 1996 in the area of the WMU showed an area approximately 35 by 16 contaminated with toluene to a depth of about four feet. In addition, a few other areas existed near the surface where lead and chromium levels were above background levels and ink solvents had been detected. The WMU was characterized by a layer of crushed stone approximately 2-3 inches deep and subsoil consisting mainly of clay. See Final Closure Certification Report: Closure Plan § 1.1 p. 3.

Excavation of the contaminated soil was accomplished on April 26, 1996. As documented in the *Final Closure Certification Report*, soil was removed at depths between 2 and 8 feet until all toluene contaminated soil had been removed. *See Final Closure Certification Report* § 3.1, p. 8. The *Final Closure Certification Report* does not note that any groundwater was encountered. On behalf of DOI, I contacted Henry Stonerook, the engineer who oversaw the project, and he did not have any documents relating to the matter.

The Final Closure Certification Report specified non-detect as the cleanup goal for toluene. Id. § 1.4, p. 4. The Report further stated:

SLK COL:#264500v1

After removal of the contaminated soil, the floor of the cavity was sampled at six locations. The samples were iced down in coolers for transportation back to Lockwood Laboratories. Subsequent testing for Total Toxic Organics via EPA testing protocol SW 846 method 8240 for volatiles, 7420 for lead and 7190 for chromium was conducted. Those results may be found in Appendix "E." They indicate that all of the contamination was removed and the closure was complete. (Emphasis in Original).

On August 15, 1996, the Ohio EPA informed DOI that the agency had determined that "the former hazardous waste disposal area had been closed in accordance with the approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code." *See Thomas E. Crepeau letter to Design Original, Inc. (August 15, 1996)* (Attached hereto).

Ohio EPA closure guidance has long used the "non-detect" standard as the cleanup target level where achievable. *See Closure Plan Review Guidance for RCRA Facilities* § 3.11.2, p. 46 (March 1999) (Attached hereto). Ohio EPA's closure guidance further stated:

In the event of confirmed or potential soil contamination, verification ground water sampling may be required through the closure plan. The decision is usually based on the likelihood of ground water coming in contact with the contaminated soil horizon. In order to determine if this has happened (or is likely to happen), the full vertical extent of contamination should be established <u>after</u> a minimum of two consecutive sampling results, covering a depth at least three to five feet beyond the last point where contamination was confirmed, have shown that the concentrations of contaminants are below their respective remediation standards. If, during the soil sampling event, the uppermost aquifer has not been encountered (sampling interval has not intersected the plane of the saturated zone), then it can be assumed that the seasonal high water table has not and probably will not make contact with the lowest vertical extent of soil contamination. Therefore, the ground water, in spite of season fluctuations, does not have a high chance of being contaminated. *Id.* § 31.4, pp. 67-68 (Attached hereto).

On October 10, 2001, Mr. Hak Cho, Chief of the U.S. EPA Corrective Action Section, sent DOI a "RCRA Corrective Action Evaluations" letter and stated that U.S. EPA had documentation which indicated that remedial activities may have addressed the environmental concerns at the site and that the agency's Juana Rojo would meet with DOI on site on October 18<sup>th</sup> or 19<sup>th</sup> of 2001. See Hak Cho letter to Frank Pusey (October 10, 2001) (Attached hereto). Mr. Cho's letter further stated "[i]f environmental concerns have been satisfactorily addressed through past remedial activities, your facility will be classified as requiring no further corrective action. However, in the event that environmental issues requiring corrective action remain and these issues are not currently being addressed, we would present you with options to perform remedial activities." Id.

Brian P. Freeman June 13, 2014 Page 3

According to Mr. Pusey, Ms. Rojo met with Mr. Pusey at the DOI site and during the meeting informed Mr. Pusey that as a result of the 1996 remediation the environmental concerns had been satisfactorily addressed. Ms. Rojo did not, however, provide anything in writing to DOI. See Response of Design Original, Inc. to U.S. EPA RCRA 3007(a) Information Request Dated May 7, 2014 (Attached hereto). DOI has no information that the U.S. EPA ever presented any options to DOI regarding corrective action as Mr. Cho's letter represented it would if environmental issues requiring corrective action remained in 2001.

On behalf of DOI, I respectfully request pursuant to the Freedom of Information Act, 5 U.S.C. § 552 *et seq.*, that U.S. EPA provide me with all documents and records that the agency has relating to the DOI site, including but not limited to all records and documents relating to Ms. Rojo's site visit and meeting with Mr. Pusey. DOI is willing to pay copying costs up to a maximum of \$100. If you estimate that copying costs will exceed this limit, please inform me first. Further, if DOI is required to make this request to a Freedom of Information officer, please identify the officer to whom it should be made and DOI will do so.

In addition, please be advised that on June 16, 2014, DOI made a public records request to the Ohio EPA and the agency indicated that it has documents relating to the site. *See Brenda Keil letter to Penny Hataway (Ohio EPA) dated June 16, 2014* (Attached hereto). Ohio EPA has indicated it will copy and provide these records in July. On behalf of DOI, we will forward those records to you after we receive them from the agency.

Unless Ohio EPA's and/or U.S. EPA's records provide information that contradicts the *Final Closure Certification Report*, DOI submits that, based on the report and Ms. Rojo's 2011 site inspection, all available relevant and/or significant information demonstrates that groundwater at the DOI site is not known or reasonably suspected to be contaminated.

For the record, in responding to this 3007(a) request, DOI objects to the quest that DOI certify its responses as section 3007, 42 U.S.C. § 6927, does not require certified responses. DOI reserves all of its rights, defenses, and claims that it possesses or may possess relating to this matter. Notwithstanding this reservation, DOI will continue to cooperate with the agency to try to reach a resolution of this matter as quickly and efficiently as possible.

If you have any questions or wish to discuss this matter further, please do not hesitate to contact me. And thank you for your attention to this matter.

Very truly yours,

Kevin P. Braig

Brian P. Freeman June 13, 2014 Page 4

#### KPB/md

## ce: VIA FEDERAL EXPRESS (WITHOUT ENCLOSURES) Padmavati G. Bending

Padmavati G. Bending Associate Regional Counsel U.S. EPA, Region 5 Office of Regional Counsel (C-14J) 77 West Jackson Blvd., Chicago, IL 60604

### RESPONSE OF DESIGN ORIGINAL, INC. TO U.S EPA RCRA SECTION 3007(a) INFORMATION REQUEST DATED MAY 7, 2014

The following responds to U.S. EPA's information request set forth in its letter to Design Original, Inc. ("DOI") dated May 7, 2014:

1. Identify all persons consulted in preparing the answers to this Request for Information. Provide the full name and title of each person identified.

**RESPONSE:** 

Frank Pusey - President, Design Original, Inc.

Henry Stonerook – Professional Engineer, Stone Environmental, Inc.

Kevin P. Braig, Esq. - Shumaker, Loop & Kendrick, LLP

2. Provide all documents relating to the collection and/or analysis of samples of groundwater at the facility. This includes but is not limited to, all records on sample collection; chain-of-custody forms; Quality Assurance or Quality Control plans or procedures; log books; analytical reports; records identifying or describing the analytical methods used to analyze samples; data-validation records; records on the calibration of equipment; and emails or other correspondence discussing the sample analyses.

#### **RESPONSE:**

After a diligent search of its records, DOI has not located any documents in its possession, custody or control that are responsive to the request. However, DOI has located documents related to: (a) the closure of the site in accordance with an Ohio EPA approved closure plan and Rules 3745-66-12 through 3745-66-15 of the Ohio Administrative Code and (b) a "RCRA Corrective Action Site Evaluation" inspection undertaken by Ms. Juana Rojo of the U.S. EPA in October of 2001. DOI hereby provides these documents with this response. Further, to the best of my recollection, in the fall of 2001, Ms. Juana Rojo of the U.S. EPA visited the DOI site and met with me. To the best of my recollection, Ms. Rojo verbally indicated to me during that visit that she did not have any environmental concerns about the property. However, I never received any written confirmation or follow-up from Ms. Rojo or anyone else at U.S. EPA.

3. Provide all documents relating to the collection and/or analyses of samples of groundwater on properties adjacent to the facility. This includes, but is not limited to, all records on sample collection; chain-of-custody forms; Quality Assurance or Quality Control plans or procedures; log books; analytical reports; records identifying or describing the analytical methods used to analyze samples; data-validation records; records on the calibration of equipment; and emails or other correspondence discussing the sampling or analyses.

RESPONSE:

DOI incorporates its response to Request No. 2 as if fully restated herein.

4. Provide all documents relating to the groundwater flow at the facility.

**RESPONSE:** DOI incorporates its response to Request No. 2 as if fully restated herein.

5. Because DOI is still waiting for documents requested from the Ohio EPA pursuant to its public records request, DOI cannot make the certification requested by the U.S. EPA. Further, DOI objects to this certification as section 3007, 42 U.S.C. § 6927, does not require DOI's response be certified. Notwithstanding the forgoing, DOI believes to the best of its knowledge that the information submitted is true and accurate. DOI reserves all of its rights, defenses, and claims that it possesses or may possess relating to this matter.

waste until sampling results and statistical analyses conducted in accordance with the waste characterization procedures described in USEPA Publication SW-846 indicate that the excavated material does not exhibit a characteristic of a hazardous waste. Soils which are contaminated, but do not exhibit a characteristic of a hazardous waste, should be removed and managed as a solid waste, unless shown to be clean via the risk assessment procedures outlined in "Guidance for Reviewing Risk-Based Closure Plans for RCRA Units."

#### Contamination Originating from Wastes Listed for Heavy Metal Content

Soils contaminated with listed hazardous wastes for which the basis for listing is heavy metal content (i.e., lead, cadmium, chromium, nickel, mercury, or arsenic) will be considered hazardous waste when the results of analysis for total metals exceed (in a manner explained in this document) either the background based remediation standards (BRS), the generic remediation standards (GRS) or the risk-based clean-up standards developed in accordance with "Guidance for Reviewing Risk-Based Closure Plans for RCRA Units."

GRS for arsenic was not established (as explained in Section 3.11.1.2).

#### 3.11.2 Compounds not Naturally Occurring

Hazardous waste releases may result in soil and ground water contamination from RCRA-regulated compounds or elements (D,F,K,P or U wastes ("listed" wastes) or 40 CFR 261, Appendix VIII) not naturally occurring in the area of the hazardous waste management unit. Soil and ground water in these areas will be considered to be contaminated if the presence of synthetic compounds or non-naturally occurring elements are detected (although not necessarily quantifiable) using the most sensitive methods available in USEPA Publication SW-846 "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods," For more Information when sampling soils for volatile organic compounds (VOCs), please consult the memorandum titled "New Methods for Preservation of Volatile Organic Compounds in Soil", available on Ohio EPA's web site: http://www.epa.state.oh.us/dhwm/new\_methods.html. Analytical data should be reported according to procedures described in SW-846. Reviewers should be careful to instruct owner/operators to report all concentration data, even if it is estimated, for compounds or elements that have been positively identified in the sample.

The analysis and detection of a desired constituent is often dependent upon the composition of the environmental media. This matrix effect was recognized by U.S. EPA when it established estimated quantitation limits (EQLs) that are specified in SW-846 test methods. The EQL differs from the detection limit (DL) of an analytical instrument. By definition, the EQL (sometimes referred to as the SQL) establishes the towest concentration of a substance that can consistently be measured in a given matrix. This comparison, the DL is a statistically derived number, that is defined as the minimum concentration that a substance can be measured and reported with 99% confidence that the value is above zero. The DHWM expects that the DL be used as the clean target level where achievable. In special circumstances, the EQL may be substituted as the clean target level where 1) the EQL is below risk based levels and 2) where matrix effects do not allow for quantification to the DL.

#### 3.13 Risk-Based Remediation Standards

Federal regulations of May 2, 1986 (51 FR 16422) and March 19, 1987 (52 FR 8704) modified the closure performance standard such that risk assessment, or what constitutes "decontamination" of a site, may be considered by USEPA as a closure option. Ohio EPA adopted the equivalent of USEPA's March 19, 1987, regulations on December 8, 1988, clarifying that risk assessment may be an option. It is Ohio EPA, DHWM, practice to consider risk assessment as a possible third option for closure for all types of units. Ohio EPA will expect complete, site-specific demonstrations of protection of human health and the environment in such closure plans. See DHWM's Closure Plans Review Guidance for RCRA Facilities, Part II, "Guidance for Reviewing Risk-Based Closure Plans for RCRA Units" for further details on the requirements for risk-based closures.

#### 3.14 Sampling Plan and Analytical Procedures

[40 CFR 264,111 and 265.111; OAC Rule 3745-55-11 and 66-11]

In any closure with soll (including ground water) contamination potential, the owner/operator must adequately define the full extent of vertical and horizontal soll contamination and contaminant concentrations. Each closure plan should explicitly state the intent to define the full extent of soll contamination. Exceptions may include closures of landfills or deep injection wells with defined limits of operations, except where contamination outside of the regulated unit boundary (i.e., the area underlying the cap) is suspected or evident.

Closures of units where there is any evidence of potential for leaks or spills or potential for waste constituent (40 CFR 261 Appendix Vfti) migration must include sampling of soil. Such evidence includes but is not limited to:

- Cöritalners, tanks, waste piles or any other unit (such as appurtenant pipes) in contact with soil;
- (2) Storage units with underlying pavement or concrete that is cracked or broken;
- (3) Areas raceiving runoff or discharge from the unit, such as a ditch, a swale, or the discharge point down gradient from a pipe;
- (4) Visual or olfactory evidence of contamination;
- (5) Knowledge, such as by employees, inspectors, or others, that releases have or may have occurred;
- (6) Length of time the unit has been in existence; and
- (7) Other situations which may lead to soil contamination.

In the event of confirmed or potential soil contamination, verification ground water monitoring also may be required through the closure plan. The decision is usually based on the likelihood of ground

water coming in contact with the contaminated soil horizon. In order to determine if this has happened (or is likely to happen), the full vertical extent of contamination should be established <u>after</u> a minimum of two consecutive sampling results, covering a depth at least three to five feet beyond the last point where contamination was confirmed, have shown that the concentrations of contaminants are below their respective remediation standards. If, during the soil sampling event, the uppermost aquifer system has not been encountered (sampling interval has not intersected the plane of the saturated zone), then it can be assumed that the seasonal high water table has not and probably will not make contact with the lowest vertical extent of soil contamination. Therefore, the ground water, in spite of seasonal fluctuations, does not have a high chance of being contaminated. However, this kind of determination must be made on a site-specific basis. If, for instance, the three to five feet zone between the plane delineating the full vertical extent of contamination and a sole source aquifer consists of sand and gravel, ground water monitoring will very likely be required.

If the unit is already subject to ground water monitoring requirements, the location, frequency or parameters for ground water sampling may also be modified or extended to verify the effectiveness of closure activities. The length of verification monitoring required shall be decided on a "case-by-case" basis taking into account site hydrogeologic conditions, waste characteristics, and other factors.

An adequate soil sampling and analysis plan should include the following information and rationale for each selection:

- (1) Parameters to be analyzed (these shall include any found in 40 CFR 261 Appendix VIII that are in the waste). In those instances where it is impossible to Identify all the constituents of the waste stream(s), it may be possible to limit laboratory analysis to the hazardous constituents specific to the industry of interest (See RCRA Facility Investigation Guidance, Volume i, Appendix B - OSWER Directive 9502.00-6C);
- (2) Number of samples and locations, including both surface points and depths, (areas of visual contamination should also be included in addition to grid or directed sampling);
- (3) Background samples (when applicable);
- (4) Sample type (grab or composite). Compositing of samples should be limited to avoid potential dilution of samples and locational specificity; composites should only be combined from a very small portion of the total area. As a rule of thumb, the area represented by a group of composited samples should be limited to no more than 2 to 5% of the total unit area;
- (5) Sampling methods, QA/QC procedures and equipment consistent with USEPA Publication SW-846 and ASTM;
- (6) Analytical methods and data reporting procedures consistent with USEPA Publication SW-846. Methods must be capable of achieving the lowest possible analytical detection limit. Owner/operators must report all concentration data, even if it is estimated, for compounds or elements that have been positively identified in the sample;

Cuited States
Environmental Protection

PENALTY FOR SUBJECT NATIONAL SUBSESSION NATION

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U.S. OFFICIAL WAIL.

Agency
Region 5
77 West Jackson Bivd.
Chicago, IL. 60604
Official Business
Penalty for Private Use

56hT 5956 0000 004E 6602



FRANK PUSEY
DESIGN ORIGINAL, INC.
"402 JACKSON STREET
JACKSON CENTER, OHIO 45334-0813

1st Notice NAME

2nd Notice

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#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### REGIONS 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE XTTENTION OF:

DW-8J

OCT 10 2001

CERTIFIED MAIL: 7099 3400 0000 9585 1495 RETURN RECEIPT REQUESTED

Frank Pusey, President Design Original, Inc. 402 Jackson Street Jackson Center, Ohio 45334-0813

> Re: RCRA Corrective Action Evaluations Design Original, Justice Center, Ohio OHD 063 989 545

Dear Mr. Pusey:

The United States Environmental Protection Agency (U.S. EPA) has conducted an evaluation of the Agency's Resource Conservation and Recovery Act (RCRA) corrective action files. Your facility, Design Original, Inc., located in Justice Center, Ohio, is shown as being potentially subject to either Sections 3004(u) or 3008(h) of RCRA. We have found historical documents indicating areas at your facility where corrective action may be required to address releases of hazardous wastes and/or constituents from solid waste management units (SWMUs) and/or Areas of Concern (AOCs). There is also documentation which indicates that remedial activities may have addressed issues of environmental concern at some of those areas. However, as this information is fairly dated, the U.S. EPA would like to meet with you and perform a visual site inspection of your facility to help determine its environmental status. This effort is being initiated in order to ensure that your facility does not pose an environmental hazard to human health or the environment.

The updated status information will serve as part of our determination of the next steps we must take. If environmental concerns have been satisfactorily addressed through past remedial activities, your facility will be classified as requiring no further corrective action. However, in the event that environmental issues requiring corrective action remain and these issues are not currently being addressed, we would present you with options to perform remedial activities. These options include addressing corrective action via a Voluntary Corrective Action agreement with the agency or through issuance of a RCRA 3008(h) order from our Enforcement and Compliance Assurance Branch.

We would like to schedule a meeting with you or an appropriate facility representative for the 18th or 19th of October 2001, to discuss these topics. Ms. Juana Rojo will be contacting you in order to schedule the date for this site visit. Your cooperation and assistance will enable her to establish the best possible understanding of the environmental condition of your facility.

Please contact Ms. Rojo of my staff at (312) 886-0990 if you have questions.

Sincerely,

Hak Cho, Chief

Corrective Action Section

Jale RArusho

Waste, Pesticides and Toxics Division

cc: Edwin Y. Lim, Ohio Environmental Protection Agency (OEPA)
Harold O'Connell, Southwest District Office, OEPA



1000 Jackson Street Toledo, Ohio 43604-5573 419.241.9000 419.241.6894 fax

www.slk-law.com

BRENDA L. KEIL (419) 321-1388 bkeil@sik-law.com

June 16, 2014

Ms. Penny Hataway OEPA SWDO 401 East Fifth Street Dayton, OH 45402 Via Fax: (937) 285-6249

Re:

Public Records Request; Design Original, Inc.

Our File No. 165585

Dear Ms. Hataway:

Pursuant to the Ohio Public Records Act, R.C. 149.43, I request that the Ohio EPA SWDO make available for inspection and copying any and all records relating to Design Original, Inc., located at 402 Jackson Street, Jackson Center, Ohio 45334.

If any records are withheld from inspection, please identify the nature of such record(s) and the reason it was withheld.

If you have any questions, please contact me at 419-321-1388. Thank you for your time and consideration.

Very truly yours,

Brenda L. Keil Senior Paralegal

BLK:mat

ce: Michael J. O'Callaghan

#### DESIGN ORIGINALS, INC 402 Jackson Street Jackson Center 45334 Shelby County RCRA ID OHD063989545

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• File Index

#### \*\*\*\*\*\*\*ALL FILES HAVE BEEN DEAD FILED \*\*\*\*\*\*\*

- Correspondence 1987 1995
- Closure Correspondence
- Final Closure Certification Report June 26, 1996
- Remediation Plan September 15, 1993
- Preliminary Review/Visual Site Inspection (PR/VSI) for RCRA Facility Assessment (RFA)
   September 1993
- Confidential

#### FINAL CLOSURE CERTIFICATION REPORT

#### DESIGN ORIGINAL, INCORPORATED 402 JACKSON STREET JACKSON CENTER, OHIO 45334-0183

PREPARED FOR: FRANK PUSEY, PRESIDENT

PREPARED BY: JAMES E. PARRISH
LOCKWOOD LABORATORIES / SPRINGFIELD ENVIRONMENTAL, INC.
PO BOX 2728
SPRINGFIELD, OHIO 45501-2728

513 / 324-8001
937
JUNE 25, 1996

#### TABLE OF CONTENTS

#### 1.0 INTRODUCTION

- 1.1 HISTORY AND BACKGROUND
- 1.2 PLAN OBJECTIVES
- 1.3 SITE PLAN
- 1.4 CLEANUP TARGET LEVELS

#### 2.0 SITE SAFETY AND SECURITY

- 2.1 SITE SAFETY PLAN
- 2.2 CONTINGENCY PLAN
- 2.3 EMERGENCY MEASURES

#### 3.0 SCOPE OF WORK

- 3.1 EXCAVATION OF CONTAMINATED ZONE
- 3.2 TRANSPORTATION AND DISPOSAL OF CONTAMINATED SOIL
- 3.3 ON-SITE TESTING
- 3.4 DECONTAMINATION
- 3.5 EQUIPMENT

#### 4.0 PROJECT MANAGEMENT

- 4.1 TIME TABLE
- 4.2 ENGINEERING RESPONSIBILITY
- 4.3 CERTIFICATION

APPENDIX "A"	CLOSURE PLAN
APPENDIX "B"	REGIONAL MAPS
APPENDIX "C"	ROLL-OFF TCLP TEST RESULTS
APPENDIX "D"	ROLL-OFF "TOTAL" TEST RESULTS
APPENDIX "E"	SITE CLOSURE TEST RESULTS
APPENDIX "F"	EPA CORRESPONDENCE
APPENDIX "G"	PHOTOGRAPHS TAKEN DURING EXCAVATION
APPENDIX "H"	WASTE DISPOSAL MANIFESTS

#### 1.0 INTRODUCTION

#### 1.1 HISTORY AND BACKGROUND

This closure is in response to an Enforcement Action by the Ohio EPA on respondent Mr. Frank Pusey, President, Design Original, Inc. The closure follows a plan dated November 30, 1995 and approved by the Ohio EPA in a letter dated May 10, 1996. The Generator Identification Number for this company is OHD063989545.

Design Original is a manufacturer of stitched embroidery and printed wearing apparel. The processes involved are stitching and silk screening. The silk screening process utilizes solvent based inks.

The manufacturing operations are housed in a one story building built on a concrete slab.

The Waste Management Unit (WMU) was an area adjacent to the west side of the building. The contamination occurred when silk screen frames were being cleaned with toluene outside the building. Subsequent testing of the soil in this area had shown that an area approximately 35 by 16 feet was contaminated with toluene to a depth of about 4 feet. In addition, a few "hot spots" existed near the surface where lead and chromium readings were above background levels. Certain other ink solvents were also detected. The closure plan and preliminary sampling data are presented in Appendix.

The WMU was characterized by a layer of crushed stone approximately 2-3 inches deep and a subsoil consisting mainly of clay.

#### 1.2 PLAN OBJECTIVES

The plan was developed to satisfy the closure requirements stated in the Ohio Administrative Code (ORC) 3745-66.

Design Original, Inc. in concert with Lockwood Laboratories / Springfield Environmental, Inc. (LL/SEI) accomplished the following remediation objectives:

- a) Implemented the site safety and security plan
- b) Determined the extent of soil removal necessary utilizing HNu Photoionization Detection (PID) test meter on site
- c) Excavated approximately 100 cubic yards of contaminated soil
- d Sampled, tested and characterized the waste profile of the removed soil
- e) Transferred the removed soil to two licensed disposal sites
- f) Backfilled with clean fill material
- g) Prepared the final closure certification report

### 1.3 SITE PLAN

See Figure 3.1, attached. The site is located at 402 Jackson street in Jackson Center, Ohio. The closure encompassed an area approximately 48 by 18 feet. Soil sampling points are also shown on the plan.

### 1.4 CLEANUP TARGET LEVELS

The target levels for cleanup of the WMU as listed in the approved closure plan were as follows:

Non Detectable
29.0 ppm (Ohio Farm Soils)
20.0 ppm " " "
Non Detectable
čć
cc
46
cc
cc
cc
cc

<sup>\*</sup>These solvents were detected in tests conducted in 1993.

The levels of Lead and Chromium selected for cleanup targets were those found as "Background Levels of Heavy Metals in Ohio Farm Soils", 1983, Research Circular #275, Ohio State University, Wooster, Ohio.

### 2.0 SITE SAFETY AND SECURITY

### 2.1 SITE SAFETY PLAN

### A) GENERAL INFORMATION

SITE:

Design Original, Incorporated

ADDRESS:

402 Jackson Street

Jackson Center, Ohio 45334-0813

PREPARED BY:

James E. Parrish, Environmental Engineer

Lockwood Laboratories / Springfield Environmental, Inc.

P. O. Box 2728 1001 East Street

Springfield, Ohio 45501-2728

OVERALL HAZARD:

SERIOUS

**MODERATE** 

LOW XXX

UNKNOWN

SITE DESCRIPTION:

Relatively level terrain with no overhead obstruction and only minor underground obstructions (sanitary sewer tile).

### **B) SITE WASTE CHARACTERISTICS**

WASTE TYPE:

Contaminated soil (silk screen ink cleaning solvents)

### C) HAZARD EVALUATION

Site hazards were extremely low. There were neither underground nor overhead electrical lines, no chemical hazards nor any mechanical hazards associated with this

closure.

There were no incidents during the remediation process.

### D) SITE SAFETY WORK PLAN

The Site Safety Plan was implemented without incident.

SITE SECURED:

YES, the site was secured with yellow caution tape limiting

access to the remediation workers. No smoking or open

flame was permitted.

PERSONAL PROTECTION:

Level "D": Tyvek oversuit with gloves. No

breathing protection was required because of the

low concentrations of contaminants.

**MODIFICATIONS:** 

None required.

ACTIONS:

None required.

SPECIAL EQUIPMENT FACILITIES PROCEDURES:

None.

SITE ENTRY:

Restricted to those who signed the Site Safety Plan.

**WORK LIMITATIONS:** 

Field work was completed in one day.

**CLOSURE DERIVED WASTES:** 

All equipment was hosed down at the site. All liquid

wastes and contaminated wash water were

pumped into a 55 gallon drum and removed from the

site by LL / SEI personnel.

**EMERGENCY INFORMATION:** 

PROJECT MANAGER:

James E. Parrish, Lockwood Labs (513)324-8001

FACILITY OWNER:

Frank Pusey, Design Original, Inc. (

(513)596-5121

PROJECT TECHNICIAN:

Fred Fitzsimmons, Lockwood Labs (513)324-8001

FIRE:

Jackson Center Fire Department

911

POLICE:

Jackson Center PD

911

Shelby County Sheriff

(513)498-1111

HOSPITAL:

Wilson Memorial (Sidney)

(513)492-7296

OHIO EPA, SW District:

Chris Budich, SW District Office

(513)285-6357

This Site safety and Security Plan was read and signed by the following on April 26, 1996:

James E. Parrish, Springfield Environmental Inc.

Project Manager

Fred Fitzsimmons, Springfield Environmental Inc.

Project Technician

Frank Pusey, Design Original, Inc.

Owner

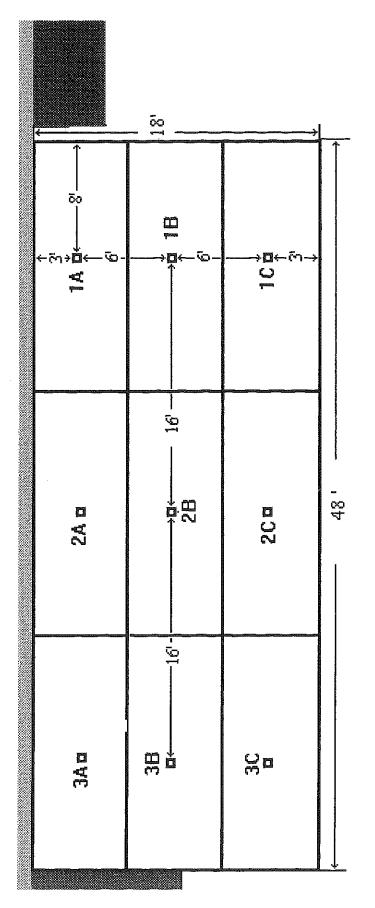
Hank Stonerook, GBS Environmental

P.E.

L. Chiles, Charlie Williams Excavating,

**Equipment Operator** 

A copy of the signed log is presented in Appendix "F".



DESIGN ORIGINAL REMEDIATION TEST PLAN

CONCRETE PAD

### 3.0 SCOPE OF WORK

### 3.1 EXCAVATION OF CONTAMINATED ZONE

Excavation of the contaminated soil was accomplished on April 26, 1996. Approximately 100 cubic yards (126 tons) of soil were excavated. The site plan (Figure 3.1) shows the area excavated. The area was divided into nine equal areas and labeled 1A, 2A, 3A, 1B, 2B, 3B, 1C, 2C and 3C as shown. The entire area was initially excavated to a depth of two feet and the soil was placed in lined roll-off containers. Excavation was followed by VOC measurements using the HNu PID Meter calibrated to Toluene. Those results are shown in Table 3.1. Five of the nine readings, 1A, 2A, 3A, 3B and 3C, were below the remediation target of <1.0. No further excavation was made in those areas.

Two additional feet of soil were then excavated from areas 1B, 2B, 1C and 2C. The PID meter readings continued to show high readings as shown in Table 3.1 at the 4 foot depth. Two more feet were excavated from those same areas and another round of PID meter readings taken. Those results were also high; as shown in Table 3.1 at the 6 foot level. Two to three additional feet were excavated for a total of eight to nine feet and another round of PID tests conducted. Those results are shown as the 8 foot depth readings and were all less than 1.0.

During excavation, an abandoned 6 inch PVC sanitary sewer line was encountered and the line broken. After excavation was completed, the line was replaced and the area backfilled. No wastewater discharge from the line entered the excavation.

Note that the excavation at the building edge was tailored to angle off at 45° from the bottom of the slab so as not to compromise the structural integrity of the building.

Photographs of the remediation activities were taken and are presented in Appendix "G".

### 3.2 TRANSPORTATION AND DISPOSAL OF CONTAMINATED SOIL

The removed soil was stored in six roll-off units. Three roll-offs were of the 30 cubic yard size and three were 20 cubic yard. Each roll-off was sampled (composite sampling procedure wherein a sample was taken from each corner plus the center of each unit). The samples were analyzed using TCLP Test procedures. Table 3.2 lists the results of the TCLP analysis.

Based on the TCLP test results, the roll-off units were released to the Cherokee Run Landfill near Bellefontaine, Ohio. Two of the roll-offs were transported to Cherokee Run on Friday, May 10, 1996 and two more on Saturday, May 11 (roll-offs #2,4,5 and 6). The remaining two roll-offs were not transported that day because of extremely wet and muddy ground.

TABLE 3.1 DESIGN ORIGINAL HnU SAMPLE RESULTS APRIL 26, 1996

SAMPLE POINT	DEPTH	TIME	READING	
1A	2	11:40AM	<1	
1B	2	11:36	310	
2A	2	11:42	<1	
2B	2	11:37	50	
3A	2	11:40	<1	
3B	2	11:38	<1	
3C	2	11:39	<1	
1C	2	12:30	350	
2C	2	12:32	60	
1B	4	1:40	90	
2B	4	1:42	200	
1C	4	!:45	250	
2C	4	1:50	70	
1B	6	4:08	30	
2B	6	<b>4</b> :10	210	
1C	6	5:24	32	
2C	6	5:28	4.6	
1B	8	7:10	<1.0	
2B	8	7:12	<1.0	
1C	8	7:15	<1.0	
2C	8	7:18	<1.0	
HNu Model HW-101 with 10.2 EV Lamp Serial # 6854				
Calibrated to Toluen				
All readings in parts per million toluene				

# 

ROLLOFF #		N	ന	<b> </b>		ဖ
LEAD	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
CHROMIUM	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
BENZENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
CCL4	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
CHLOROBENZENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
CHLOROFORM	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
1,4-DICHLOROBENZENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
1,2-DICHLOROETHANE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
1,1-DICHLOROETHYLENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
METHYL ETHYL KETONE	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500
TETRACHLOROETHYLENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
TRICHLOROETHYLENE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
VINYL CHLORIDE	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
		i	i			
FLASH POINT	>200 F	>200 F	>200 F	>200 F	>200 F	>200 F

# DESIGN ORIGINAL ROLLOFF TCLP ANALYSIS

On Monday, May 13, Mr. Chris Budich of the Southwest District Office of the Ohio EPA advised that TCLP testing was insufficient and that "total constituent" testing would be required to determine disposition. We advised Mr. Budich that four of the six had already been transported and disposed at the Cherokee Run Landfill. Roll-offs # 1 and # 3, however, remained at the excavation site.

An immediate "hold order" on the remaining two roll-offs was communicated to the Transporter, AWT Transfer Services of St. Paris Ohio. In addition, Cherokee Run Landfill was advised of the change in plans. Testing for "Total Volatiles" began at Lockwood Laboratories on May 13.

The results of the "totals" testing indicated that roll-offs numbered 1 through 5 were non-hazardous waste while the # 6 roll-off had 300 micrograms per kilogram (parts per billion) of Toluene.

Chris Budich (OEPA) was advised on May 15 that roll-off # 6 tested positive for toluene, but that it was one of the roll-offs that had already been landfilled at Cherokee Run. He asked that the complete scenario be included in this Closure Certification Report. He also advised that the remaining two roll-offs, # 1 and # 3, showing no contamination, could be landfilled. They were landfilled at the Stony Hollow Recycling and Landfill Facility in Dayton on May 31, 1996.

Copies of telephone logs of conversations with Mr. Budich are presented in Appendix "F".

### 3.3 ON-SITE TESTING

HNu Photoionization meter readings were taken in the approximate center of each sector as excavation progressed through each two foot increment. Those results are shown in Table 3.1.

After removal of the contaminated soil, the floor of the cavity was sampled at six locations. The samples were iced down in coolers for transportation back to Lockwood Laboratories. Subsequent testing for Total Toxic Organics via EPA testing protocol SW 846 method 8240 for volatiles, 7420 for lead and 7190 for chromium was conducted. Those results may be found in Appendix "E". They in dicate that all of the contamination was removed and the closure was complete.

### 3.4 DECONTAMINATION

Decontamination was accomplished by hosing down the backhoe bucket and tires with a high pressure nozzle and collecting the residual water in a plastic "visqueen moat". The water was pumped from the visqueen into a 55 gallon drum and removed by SEI personnel. The visqueen used for the moat was deposited with the removed soil and landfilled. Care was taken to prevent transfer of any contaminated soil from the site via

any of the equipment used. This included any debris such as personal protective clothing and gloves. These were deposited in the roll-offs and disposed with the contaminated soil.

The decontamination wastewater was returned to SEI where it was combined with similar liquid wastes. These will be tested for hazardous characteristics and subsequently disposed as required by law.

### 3.5 EQUIPMENT

Equipment on site included a backhoe, six roll-off containers (three 20 cubic yard and three 30 cubic yard), an HNu Photoionization test meter, a stainless steel trowel, a deionized water bottle, and dedicated plastic spoons for each soil sample, a quantity of plastic visqueen, a hose with a high pressure nozzle for decontamination, a portable sump pump, tygon tubing and a drum for collecting the decontamination water.

### 4.0 PROJECT MANAGERS LOG

### 4.1 TIME TABLE

The actual excavation was accomplished in one day on April 26, 1996. The day began at 7:00 AM with the spotting of two 20 cubic yard roll-offs. Excavation began soon thereafter. It became almost immediately apparent that two additional roll-offs were required. Those were ordered and delivered shortly before noon. In the meantime, the HNu PID meter readings at the two foot level were made and recorded. Those results are available in Table 3.1. Excavation of the remaining four "hot" sectors began as soon as the third and fourth roll-offs were available. When it became apparent that the excavation would need to go below the four foot level, the final two roll-offs were ordered with # 5 arriving around 4:30 PM and # 6 near 6:30 PM. Excavation continued to the 8 or 9 foot level before the PID readings were below 1.0. The post closure sampling was conducted and the decontamination of equipment was accomplished by 8:00 PM. The site was subsequently secured by 8:30 PM.

After the initial TCLP testing on the roll-offs was completed on May 3, 1996 and the Cherokee Run Landfill had accepted the waste on May 9, 1996, the transfer agent (AWT) was released to move the roll-offs to the landfill. Transfer of the first two units took place on Friday afternoon, May 10 with the next two on Saturday, May 11. Movement of the last two was postponed until the field opposite them could dry out. It was feared that the trucks would become bogged down in the mud. Backfill of the excavation with clean gravel took place on Saturday April 27, 1996.

Chris Budich (OEPA) was provided with a verbal status report on May 13.

### 4.2 ENGINEERING RESPONSIBILITY

Engineering decisions at the site were the responsibility of the Project Manager, James E. Parrish, of Lockwood Laboratories / Springfield Environmental, Inc.

Mr. Henry R. Stonerook, P. E., was present at the site to observe excavation and closure activities and to provide the required Professional Engineer certification. Mr. Stonerook certifies the excavation and closure activities but was not involved with the disposition of the waste soil.

### 4.3 CERTIFICATION

The owner / operator, Frank E. Pusey; the Project Manager, James E. Parrish; and Henry R. Stonerook, Registered Professional Engineer have signed this Closure Certification.

This paragraph satisfies the requirements listed in The Ohio Administrative Code 3745-50-42.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Owner/Operator:	
	Frank E/Puşey
Project Manager:	m E. Werrel
	James E. Parrish SIME UF Ohilo
Registered Professional Engineer:	Hun R. Ston Book
	Henry R. Stonerolle, 49181.
	THE COSTERED TO
	COSTONAL ENGLISH

APPENDIX "A" CLOSURE PLAN

### **CLOSURE PLAN**

for

## DESIGN ORIGINAL, INCORPORATED 402 JACKSON STREET JACKSON CENTER, OHIO

PREPARED BY: JAMES E. PARRISH LOCKWOOD LABORATORIES / SPRINGFIELD ENVIRONMENTAL, INC. PO BOX 2728 SPRINGFIELD, OHIO 45501-2728 513 / 324-8001

NOVEMBER 30, 1995

### **INDEX**

### 1.0 INTRODUCTION

- 1.1 HISTORY AND BACKGROUND
- 1.2 PLAN OBJECTIVES
- 1.3 SITE PLAN
- 1.4 CLEANUP TARGET LEVELS

### 2.0 SITE SAFETY AND SECURITY

- 2.1 SITE SAFETY PLAN
- 2.2 CONTINGENCY PLAN
- 2.3 EMERGENCY MEASURES

### 3.0 SCOPE OF WORK

- 3.1 EXCAVATION OF CONTAMINATED ZONE
- 3.2 TREATMENT AND DISPOSAL OF CONTAMINATED SOIL
- 3.3 ON-SITE TESTING
- 3.4 DECONTAMINATION
- 3.5 EQUIPMENT

### 4.0 PROJECT MANAGEMENT

- 4.1 TIME TABLE
- 4.2 ENGINEERING RESPONSIBILITY
- 4.3 COST ESTIMATE
- 4.4 CERTIFICATION

### 5.0 FINANCIAL ASSURANCE

### 1.0 INTRODUCTION

### 1.1 HISTORY AND BACKGROUND

This plan is in response to a "Notice of Deficiency" (NOD) dated November 25, 1994 from Donald R. Schregardus, Director of the Ohio Environmental Protection Agency (OEPA). In addition, a previous Closure Plan dated September 15, 1993 (and amended Jan. 4, 1994) was never corrected to satisfy the NOD. This plan corrects the previous deficiencies and responds to an "Enforcement Action" by the Ohio EPA on the owner of this company at 402 Jackson Street in Jackson Center, Ohio.

It should be noted that this is a new Closure Plan and not a modification to the one submitted by Regency Environmental, Inc.

The deficiencies noted in the OEPA Notice of Deficiency are addressed as follows:

See Section 4.4
See Section 1.3
See Section 1.4
See Section 3.4

See Section 1.4

#5

Design Original is a manufacturer of stitched embroidery and printed wearing apparel. The processes involved are stitching and silk screening. The silk screening process utilizes solvent based inks. Cleanup of the screens involves the use of toluene. The Generator Identification Code for this company is OHD063989545.

The manufacturing operations are housed in a one story building built on a concrete slab.

The Waste Management Unit (WMU) is an area outside the west side of the building and adjacent to the building where silk screens were cleaned with toluene. Subsequent testing of the soil in this area has shown that an area approximately 35 by 16 feet is contaminated with toluene (F005) to a depth of about 4 feet. In addition, a few "hot spots" exist near the surface where lead and chromium readings are above background levels and certain other ink solvents have been detected.

The WMU is characterized by a layer of crushed stone approximately 2-3 inches deep and a subsoil consisting mainly of clay.

### 1.2 PLAN OBJECTIVES

This plan will satisfy the closure requirements stated in the Ohio Environmental Protection Agency Code 3745-66.

Lockwood Laboratories / Springfield Environmental, Inc. (LL/SEI) will attempt to accomplish the following remediation objectives:

- a) Remove approximately 60 cubic yards of contaminated soil.
- b) Sample, test and characterize the waste profile of the removed soil.
- c) Transfer the removed soil to a licensed disposal site.
- d) Develop and obtain all necessary permits.
- e) Determine the extent of soil removal necessary by use of HNu Photoionization Detection (PID) test unit on site.
- f) Backfill with clean fill material.
- g) Develop and implement the site safety and security plans.
- h) Prepare the final closure report.

### 1.3 SITE PLAN

See Figure 1.3 attached. The site is located at 402 Jackson Street in Jackson Center, Ohio. The cleanup will encompass an area approximately 35 by 16 feet including points 4 and 8 which were mentioned in item #2 of the "Specific Comments" in the Notice of Deficiency.

### 1.4 CLEANUP TARGET LEVELS

The target levels for cleanup of this WMU are as follows:

Toluene	Non Detectable
Lead	29.0 ppm (Ohio Farm Soils)
Chromium	20.0 ppm " " "
Methylene Chloride*	Non Detectable
Chlorobenzene*	¢¢
Xylene*	cc c
Acetone*	cc
Methyl Isobutyl Ketone*	cc
Methyl Ethyl Ketone*	cc
Benzene*	66
Ethyl Benzene*	<b>دد</b>

<sup>\*</sup>These solvents were detected in tests conducted in 1993.

The levels of Lead and Chromium selected for cleanup targets are those found as "Background Levels of Heavy Metals in Ohio Farm Soils", 1983, Research Circular #275, Ohio State University, Wooster, Ohio. This satisfies "Specific Comment #3", in the Notice of Deficiency. It also satisfies the requirements listed in OAC 3745-66-12 (B) (4).

The above also addresses "Specific Comment #5" in the Notice of Deficiency by targeting cleanup levels for the solvents found in the 1993 testing (OAC 3745-66-12(B) (2).

vi — <u>Б</u>Ш M/S Numbers refer to soil boring test locations. Approximate Area of Remediation ц. П <u>.6</u> •IJ, (Not to Scale) 

### 2.0 SITE SAFETY AND SECURITY PLAN

### 2.1 SITE SAFETY PLAN

### A) GENERAL INFORMATION

SITE:

Design Original, Incorporated

ADDRESS:

402 Jackson Street

Jackson Center, Ohio 45334-0813

PREPARED BY:

James E. Parrish, Environmental Engineer

Lockwood Laboratories / Springfield Environmental, Inc.

P. O. Box 2728 1001 East Street

Springfield, Ohio 45501-2728

OVERALL HAZARD:

SERIOUS MODERATE

LOW XXX UNKNOWN

SITE DESCRIPTION:

Relatively level terrain with no overhead obstruction.

### B) SITE WASTE CHARACTERISTICS

WASTE TYPE:

Solid (Soil contaminated with toluene).

### C) HAZARD EVALUATION

Site hazards are very low. There are no underground or overhead electrical lines, no chemical hazards nor any mechanical hazards associated with this remediation plan. There may be a slight fire hazard associated with the remediation of solvent laden soil. However, the low concentration of solvents should not present an explosive or

respiratory hazard.

### D) SITE SAFETY WORK PLAN

PERIMETER ESTABLISHMENT

MAP/SITE PLAN ATTACHED:

YES

SITE SECURED:

YES, Site will be secured with yellow caution tape limiting access to remediation workers. No

smoking or open flame will be permitted.

PERSONAL PROTECTION:

Level "D": Tyvek oversuit with gloves. No

breathing protection will be required because of the

low concentrations of contaminants.

MODIFICATIONS:

None required. Level "D" with gloves will suffice.

ACTIONS:

If organic vapor concentration at breathing zone rises to hazardous level, workers will be removed from the site and instructed to go to Level "C".

SPECIAL EQUIPMENT FACILITIES PROCEDURES:

None.

SITE ENTRY:

To be arranged with Project Manager.

WORK LIMITATIONS

Daylight Hours.

**CLOSURE DERIVED WASTES:** 

All equipment will be hosed down at the site. All wastes and contaminated soils will remain at the work site until released for disposal. Personal protective clothing will be quarantined and remain

with the soil until released for disposal.

EMERGENCY INFORMATION:

PROJECT MANAGER:

James E. Parrish, Lockwood Labs (513)324-8001

FACILITY MANAGER:

Frank Pusey, Design Original, Inc. (513)596-5121

PROJECT TECHNICIAN:

Fred Fitzsimmons, Lockwood Labs (513)324-8001

FIRE:

Jackson Center Fire Department

911

POLICE:

Jackson Center PD

911

Shelby County Sheriff

(513)498-1111

HOSPITAL:

Wilson Memorial (Sidney)

(513)492-7296

OHIO EPA:

Chris Budich, SW District Office

(513)285-6357

### 2.2 CONTINGENCY PLAN

The contingency plan is formulated in order to have pre-planned actions minimizing hazards in case of fire, explosion or any unplanned release of hazardous waste into the environment whether air, soil, surface water or aquifer. The contingencies are planned for all activities associated in executing the remediation objectives.

### Implementation of the Contingency Plan

The Project Manager has full authority in case of an emergency during the execution of the Remediation Plan. The following potential situations may trigger implementation of the Contingency Plan:

### **Explosion**

Although highly unlikely, an explosion could possibly occur. All personnel will be evacuated.

### Fire

The probability that a fire could occur is low. If a fire does breakout, uncontaminated soil would be used to smother the fire.

### Air Release

Air releases of a minor nature will occur during excavation. If the concentrations reach hazardous proportions, personnel will be removed from the area and outfitted with "C" level protection.

### 2.3 EMERGENCY MEASURES

The measures listed here will be followed for all non-acute emergencies:

- 1) All employees discovering an emergency shall notify the Project Manager.
- 2) The Project Manager, in concert with the Facility Manager, will assess the severity of the emergency and contact the appropriate emergency personnel.
- 3) The Project Manager and the Facility Manager will take the necessary steps to contain the hazard and secure the site.
- 4) The project Manager will take all necessary steps to inform all emergency personnel of the hazardous nature of the site.

- 5) All non-essential personnel will be removed from the area until the emergency is under control. Project personnel will meet at the street near the railroad tracks, until the Project Manager determines it is safe to resume work.
- 6) The Project Manager will ensure all contaminated wastes from emergency personnel are collected and contained after the emergency is brought under control. (Tyvek suits, gloves absorbents etc.)
- 7) The Project Manager and the Facility Manager will ensure that all on-site equipment is restored to pre-emergency condition before remediation is continued.
- 8) The Project Manager and the Facility Manager will investigate the cause of the emergency and provide an irreversible solution to prevent a reoccurrence.

### SITE SAFETY PLAN ACKNOWLEDGMENT FORM

PRINT NAME	SIGNATURE	REPRESENTING	DATE
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TTT OF THE POST OF THE STATE OF			Plot
		Business Annual Control of the Contr	
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Table 3.1

SOIL BORING DATA PRIOR TO REMEDIATION

All data in parts per million (milligrams per Kilogram)

LOCATION	<u>DEPTH</u>	DATE	TOLUENE*	LEAD*	CHROMIUM*
1	0" TO 6"	10/25/90	ND	41	6
1	24" TO 36"	10/25/90	0.051	41	17
2	0" TO 6"	10/31/90	ND	25	15
2	24" TO 36"	10/25/90	78	14	16
3	0" TO 6"	10/25/90	10.3	13	12
3	24" TO 36"	10/25/90	3.2	27	17
4	0" TO 6"	10/25/90	0.007	13	16
4	24" TO 36"	10/25/90	0.008	25	15
5	0" TO 6"	10/25/90	ND	39	28
5	24" TO 36"	10/25/90	36	27	22
6	0" TO 6"	10/25/90	3.7	27	19
6	24" TO 36"	10/31/90	819	28	19
7	0" to 6"	10/25/90	2.5	13	18
7	24" to 36"	10/25/90	1.24	27	17
8	0" to 6"	10/25/90	0.01	26	18
8	24" to 36"	10/25/90	1.34	27	18
9	0"to 6"	10/31/90	0.08	29	19
9	24" to 36"	10/25/90	2.9	14	23
10	24" to 36"	10/25/90	1040	27	23
11	36"	8/16/93	0.104*		
12	36"	8/16/93	0.087*		
13	36"	8/16/93	18.100*		
14	0" to 24"	11/6/95	0.142	22.75	7,98
14	24" to 48"	11/6/95	1.600	7.95	8.61
15	0" to 24"	11/6/95	0.351	64.0	17.8
15	24" to 48"	11/6/95	0.058	20.89	15.07
16	0" to 24"	11/6/95	68.300	15,66	14.29
16	24" to 48"	11/6/95	78.800	8.55	13.52

<sup>\*</sup> Also, evidence of methylene chloride, chlorobenzene, xylene, acetone, methyl isobutyl ketone, methyl ethyl ketone, benzene and ethylbenzene was seen in the 1993 samples.

ND = Non Detectable

Bold numbers represent levels above the cleanup target levels.

### 3.0 SCOPE OF WORK

### 3.1 EXCAVATION OF CONTAMINATED ZONE

The site plan, shown as Figure 1.3, shows the area to be excavated as the shaded area of the plan. Soil depth removed will be approximately 48". However, soil depth removed will be determined in the field using an HNu Photoionization Detection (PID) instrument calibrated to toluene. A target concentration of <1.0 parts per million (1.0 mg/Kg) as measured by the PID will be adopted.

The excavation at the building edge will be tailored to angle off at 45° from the bottom of the slab so as not to compromise the structural integrity of the building.

### 3.2 TREATMENT AND DISPOSAL OF CONTAMINATED SOIL

The contaminated soil will eventually be transported to a certified landfill for disposal. The removed soil will be sampled and tested in the lab for hazardous characteristics. If the test results are below standards, the soil will be landfilled. If not, the soil will be stored on an impervious surface until other arrangements can be made. The other arrangements may include thermal desorption, incineration or bioremediation. If the soil must be disposed as hazardous waste, delisting options will be explored.

### 3.3 ON-SITE TESTING

After removal of the contaminated soil, the floor of the cavity will be sampled at six locations. The samples will be iced down in coolers for transportation back to Lockwood Laboratories and subsequent testing for toluene via EPA testing protocol SW 846 method 8020.

### 3.4 DECONTAMINATION

Decontamination will be accomplished by hosing down the backhoe bucket and tires with a high pressure nozzle and collecting the residual water in a plastic "visqueen moat". The water will be pumped into a drum and subsequently tested for hazardous characteristics. The test results will dictate the disposal procedure for the water. If hazardous, the water will be transported and disposed as hazardous waste at a certified disposal facility. The visqueen used for the moat will be kept with the removed soil until final disposition. Care will be taken to prevent transfer of any contaminated soil from the site on any of the equipment used. This would include any debris such as personal protective clothing and gloves. These will be deposited and disposed with the contaminated soil.

The above satisfies "Specific Comment #4" in the Notice of Deficiency.

### 3.5 EQUIPMENT

Equipment on site will include a backhoe, approximately 5, 20 cubic yard rolloff containers, an HNu Photoionization testing meter, appropriate sampling equipment, a quantity of plastic visqueen, a hose with a high pressure nozzle for decontamination and a drum for collecting the decontamination water.

### 4.0 PROJECT MANAGEMENT

### 4.1 TIME TABLE

The actual excavation can be accomplished in one day. The sub contracting, leasing and scheduling of the backhoe and rolloffs will take approximately two weeks once the project is approved by all parties. Testing of the post removal samples will consume an additional week and final disposition should be decided within two weeks of the excavation. Acceptance of the waste at the landfill will be determined by the "Hazardous Waste Profile" of the contaminated soil.

### 4.2 ENGINEERING RESPONSIBILITY

Engineering decisions at the site will be the responsibilities of the Project Manager. Within sixty days of final disposal of the removed soil and subsequent closure with clean backfill, the project Manager will prepare a Certification of Final Closure for submission to the Director of the Ohio EPA by registered mail. The certificate will state that the hazardous waste management unit was closed in accordance with the approved closure plan.

### 4.3 COST ESTIMATES

		\$
Preliminary Testing and Closure Plan Preparatio	n	2200.00
Excavation Including Equipment Mobilization		1300.00
Roll-off Leasing Fees 6 units @ 200\$/w	eek for 2 weeks	2400.00
Roll off Delivery and Transportation to Landfill	6 @ <b>42</b> 5	2520.00
Hazardous Waste Laboratory Profile	6@ \$850	5100.00
Project Manager/Engineer 10 hr. @ \$	375	750.00
Project Technician 10 hr. @ \$	35	350.00
Post Closure Certification Testing 3 @ \$650		1950.00
Disposal Fees (assuming disposal as F005) 60	yards @\$390 / yd	23,400.00
Totals		\$39,970.00

### 4.4 CERTIFICATION

Both the Owner and a Registered Professional Engineer will sign off on the following statement when the closure has been completed.

This paragraph satisfies the requirements listed in The Ohio Administrative Code 3745-50-42.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The above satisfies #1 of the "Specific Comments" noted in the Notice of Deficiency dated Nov. 25,1994.

### 5.0 FINANCIAL ASSURANCE

Design Original, Inc. will provide financial assurance that the Closure Plan shall be executed through The "Financial Test" noted in 40 CFR Part 265 Subpart "H".

Table 1

# Analytical Results Soil Sampling Design Original, Inc. Jackson Center, Ohio October 24, 25 & 31, 1990

### Results Reported In Dry Weight (mg/kg)

-	Sample			
Sample ID	Depth	Total	Total	Toluene
	(inches)	Chromium	Lead	
5.4	0.08		<i>a</i> m	501
D-1	0-6*	6	41	BQL
D-1	24-36"	17	41	0.051
D-2(A)	0-6"	15	25	BQL
D-2	24-36"	16	14	78 -
D-3	0–6″	12	13	10.3
D-3 D-3	24-36*		27	
D3	24-30"	17	21	3.2
D-4	0-6".	16	13	0.007
D-4	24-36"	15	25	0.008
D-5	06"	28	39	BQL
D-5	24-36"	22	27	36
D6	0–6″	19	27	3.7
D-6(A)	24-36"	19	28	819
r=\	0 0"	40	4.0	2.5
D-7	0-6"	18	.13	2.5
D-7	24-36"	17	27	1,24
D-8	06″	18	26	0.010
D8	24-36"	18	27	1.34
5 0(1)		4.0		0.000
D-9(A)	0-6"	19	29	080.0,
D-9	24–36″	23	14	2.9
D-10	24-36"	23	27	1040

Note:

BQL = Below Quanitation Limit

(A) = Replacement Samples taken 10/31/90

Sample D-10, 24"-36" is a duplicate sample of D-2, 24"-36"

Lab Analysis by Kemron Environmental Services

# ONY COMP

# RCP, INC.

2246 S. Hamilton Rd. 6603-1214 Tang P.O. Box 32454 Orlando, Florida Columbus, Ohio 43232 (407) 238-1614 (614) 864-6123

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

EPA Approval No. 4160

# LABORATORY RESULTS

DATE RECEIVED 08-08-1993

DATE OF REPORT 08-13-1993

PAGE 1

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 212

### SAMPLE DENTIFICATION/DESCRIPTION

Soil 36" Depth Location #1; College: 2, 1)

ANALYSIS	RESULTS	UNITS	METHOD
1			
trachloroethylene	< 5.0	ug/kg	SW-846 / 6240
ichloroethylene	< 5.0	ug/kg	SW-846 / 8240
hylene Chloride	74.2	ug/kg	SW-846 / 8240
, 1-Trichloroethane	< 5.0	ug/kg	SW-846 / 5240
goon Tetrachloride	< 5.0	ug/kg	SW-846 / 8240
orinated Flurocarbons	<10.0	ug/kg	SW-846 / 8246
trachloroethylene	< 5.0	ug/kg	SW-846 / 8240
hylene Chloride	74.2	ug/kg	SW-846 / 8240
chloroethylene	< 5.0	ug/kg	SW-846 / 8249
.1-Trichloroethane	< 5.0	ug/kg	SW-846 / 8240
, 2-Trichloro-	11.6	ug/kg	SW-846 / 3240
,2-Trifluoroethane	<10.0		011 046 / 0075
2-Dichlorobenzene	< 5.0	ug/kg ug/kg	SW-846 / 8240 SW-846 / 8240
hlorofluoromethane	<10.0	ug/kg ug/kg	SW-846 / 8240
, 2-Trichloroethane	< 5.0	ug/kg ug/kg	SW-846 / 8240
0.3	` ` ` ` ` `	49719	3 # - 04 0 7 8 2 4 6
an e	5.5	ug/kg	SW-846 / 8240
rone	218.0	ug/kg	SW-846 / 8240
Tyl Acetate	< 5.0	ug/kg	SW-846 / 8240
r <sub>.</sub> yl Benzene	< 5.0	ug/kg	SW-846 / 5240
y! Ether	< 5.0	ug/kg	SW-846 / 8249
myl Isobutyl-			
· one	76.1	ug/kg	SW-846 / 8240
utyl Alcohol	<50.0	ug/kg	SW-846 / 8240
lohexanone	<50.0	ug/kg	SW-846 / 8270
thanol	< 250.0	ug/kg	SW-846 / 8240
T f			
sols	< 333	ug/kg	SW-846 / 8270
esylic Acid	< 3333	ug/kg	SW-846 / 8270
Frobenzene	< 333		SW-846 / 8270
5			
. bene	104.0	ug/kg	SW-846 / 8240
rhyl Ethyl Ketone	61.3	ug/kg	SW-846 / 5240
pon Disulf <b>ide</b>	<10.0	ug/kg	SW-846 / 8240
putanol	< 50.0	ид/кд	SW-846 / 824C

# RCP, INC.



2246 S. Hamilton, Rd. 6603-1214 Tanglewood Bay Dr. P.O. Box 32454

Columbus, Ohio 43232 (407) 238-1614

(014) 864-6123

EPA Approval No. 4160

LABORATORY RESULTS

SAMPLE NO.

93-001

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DATE OF REPORT | 08-13-14-1

PAGE

### **CLIENT INFORMATION**

Orlando Florida 32821

Regeasy Enviro, Inc. F. C. Box 43221 Schoobes, OH 43221 George Mominov

COMPANY NO.

2 1 2

### SAMPLE DENTIFICATION DESCRIPTION SEC

Soil 36" Depth Location #1; Colibertel:

SULTS	METHOD

**ANALYSIS** RES <100.0 ug/kg SW-846 / 8241 < 5.0 lug/kg SW-846 / 8240 eventhanol < 20.0 SW-846 / 8240 ; ug/kg < 10.0 lug/kg SW-846 / 8246

# TORY COMPANY OF THE PROPERTY O

# RCP, INC.

2246 S. Hamilton Rd. P.O. Box 32454 Columbus, Ohio 43232 (614) 864-6123 6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

EPA Approval No. 4160

# LABORATORY RESULTS

 SAMPLE NO.
 93-0211

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 08-06-1993

 DATE OF REPORT
 08-13-1993

 PAGE
 1

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 212

### SAMPLE IDENTIFICATION/DESCRIPTION

Soil 36" Depth

Location #2; Collected: 7/28.

ANALYSIS	RESULTS	UNITS	METHOD	
F 0 0 1				
Tetrachioroethylene	< 5.0	ug/kg	SW-846 / 8240	
Trichloroethylene	< 5.0	ug/kg	SW-846 / 8240	
Methylene Chloride	33.8	ug/kg	SW-846 / 8240	
A,1,1-Trichkoroethane	< 5.0	ug/kg	SW-846 / 8240	
Carbon Tetrachloride	< 5.0	ug/kg	SW-846 / 8240	
a. @Chlorinated Flurocarbons	<10.0	ug/kg	SW-846 / 8240	
-F 0 0 2				
Tetrachloroethylene	< 5.0	ug/kg	SW-846 / 8240	
Methylene Chloride	<b>3</b> 3.8	ug/kg	SW-846 / 8240	
Trichloroethylene	< 5.0	ug/kg	SW-846 / 8240	
1,1,1-Trichloroethane	< 5.0	ug/kg	SW-846 / 8240	
Chlorobenzene	10.2	ug/kg	SW-846 / 8240	
1,1,2-Trichioro-		-		
1,2,2-Trifluoroethane	< 5.0	ug/kg	SW-846 / 8240	
1,2-Dichlorobenzene	< 5.0	ug/kg	SW-846 / 8240	
Trichlorofluoromethane	<10.0	ug/kg	SW-846 / 8240	
1,1,2-Trichloroethane	< 5.0	ug/kg	SW-846 / 8240	
F003	•			
Kylene	< 5.0	ug/kg	SW-846 / 8240	
Acetone	145.0	ug/kg	SW-846 / 8240	
Ethyl Acetate	< 5.0	ug/kg	SW-846 / 8240	
5thyl Benzene	< 5.0	ug/kg	SW-846 / 8240	
Ethyl Ether	< 5.0	ug/kg	SW-846 / 8240	
Methyl Isobutyl-		ļ		
Ketone	< 5.0	ug/kg	SW-846 / 8240	
n-Butyl Alcohol	< 50.0	ug/kg	SW-846 / 8240	
Syclohexanone	<50.0	ug/kg	SW-846 / 8270	
Methanol	<250.0	ug/kg	SW-846 / 8240	
7004				
Presols	< 333	ug/kg	SW-846 / 8270	
Cresylic Acid	< 333	ug/kg	SW-846 / 8270	
Nitrobenzene	< . 333	ug/kg	SW-846 / 8270	
<sup>7</sup> O O 5			•	
foluene	87.4	ug/kg	SW-846 / 8240	
Methyl Ethyl Ketone	<10.0	ug/kg	SW-846 / 8240	
Carbon Disulfide	<10.0	ug/kg	SW-846 / 8240	
Isobutanol	< 50.0	ug/kg	SW-846 / 8240	



# RCP, INC.

2246 S. Hamilton Rd. P.O. Box 32454 Columbus, Ohio 43232 (407) 238-1614 (614) 864-6123

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821

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# LABORATORY RESULTS

SAMPLE NO.

93-0211

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08-06-1993

DATE OF REPORT 08-13-1993

PAGE

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. 0. Box 43221 Columbus, OH 43221 George Momirov

COMPANY NO.

212

### SAMPLE IDENTIFICATION/DESCRIPTION

Soil 36" Depth

Location #2; Collected: 7/28,

ANALYSIS	R	ESULTS	UNITS	METHOD
ridine ienzene Ethoxyethanol Nitropropane	, ,	100.0 5.0 <20.0	ug/kg ug/kg ug/kg ug/kg	SW-846 / 8240 SW-846 / 8240 SW-846 / 8240 SW-846 / 8240
		, ,		

Respectfully Hele (

Laboratory Manager

# RCP, INC. 2246 S. Hamilton Rd. 6603-12



2246 S. Hamilton Rd. P.O. Box 32454 Columbus, Ohio 43232

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

(614) 864-6123

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# LABORATORY RESULTS

08-06-1993

**SAMPLE NO.** 93-0212

DATE OF REPORT 08-13-1993

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### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 212

### SAMPLE IDENTIFICATION/DESCRIPTION

\$oil 36" Depth; Location #
Collected: 7/28/93

	ANALYSIS	RESULTS	UNITS	METHOD
	F001			
1	Tetrachloroethylene	<250.0	ug/kg	SW-846 / 8240
.	Trichloroethylene	< 250.0	ug/kg	SW-846 / 8240
	Methylene Chloride	<500.0	ug/kg	SW-846 / 8240
	1,1,1-Trichloroethane	<250.0	ug/kg	SW-846 / 8240
	Carbon Tetrachloride	< 250.0	ug/kg	SW-846 / 8240
H	Chlorinated Flurocarbons	<500.0	ug/kg	SW-846 / 8240
	F 0 0 2		5 · 5	•
`	Tetrachloroethylene	<250.0	ug/kg	SW-846 / 8240
,	Methylene Chloride	<500.0	ug/kg	SW-846 / 8240
	Trichloroethylene	<250.0	ug/kg	SW-846 / 8240
4	1,1,1-Trichloroethane	< 250.0	ug/kg	SW-846 / 8240
	Chlorobenzene	<250.0	ug/kg	SW-846 / 8240
	1,1,2-Trichloro-		5. 5	
. respon	1,2,2-Trifluoroethane	<250.0	ug/kg	SW-846 / 8240
-	1,2-Dichtorobenzene	<250.0	ug/kg	SW-846 / 8240
	Trichlorofluoromethane	<500.0	ug/kg	SW-846 / 8240
1	1,1,2-Trichloroethane	<250.0	ug/kg	SW-846 / 8240
4	F003		- 3, 3	
2	Xylene	< 250.0	ug/kg	SW-846 / 8240
	Acetone	k1000.0	ug/kg	SW-846 / 8240
4	Ethyl Acetate	<250.0	ug/kg	SW-846 / 8240
١	Ethyl Benzene	250.0	ug/kg	SW-846 / 8240
Signatura Signatura	Ethyl Ether	<250.0	ug/kg	SW-846 / 8240
- Especia	Methyl Isobutyl-	,	_	
ł	Ketone	<250.0	ug/kg	SW-846 / 8240
ij	n-Buty! Alcohol	k 2 5 0 0 . 0	ug/kg	SW-846 / 8240
The state of	Cyclohexanone	2500.0	ug/kg	SW-846 / 8270
۲	Methanoi	<250.0	ug/kg	SW-846 / 8240
35	F004			
×	Cresois	< 333	ug/kg	SW-846 / 8270
P.	Cresylic Acid	< 333	ug/kg	SW-846 / B270
_	Nitrobenzene	< 333	ug/kg	SW-B46 / 8270
· Carlotte Constitution	F005			
3	Toluene	18,100	ug/kg	SW-846 / 8240
	Methyl Ethyl Ketone	<500.0	ug/kg	\$W-846 / 8240
	Carbon Disulfide	<500.0	ug/kg	SW-846 / 8240
	Isobutanol	<u> </u>	ug/kg.	SW-846 / 8240

# A CONTRACTOR CONTRACTO

# RCP, INC.

2246 S. Hamilton Rd. 6603-1214 Tan P.O. Box 32454 Orlando, Florida Columbus, Ohio 43232 (407) 238-1614 (614) 864-6123

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

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LABORATORY RESULTS

 SAMPLE NO.
 93-0212

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 DATE OF REPORT
 08-13-1993

PAGE 2

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 2 1 2

SAMPLE IDENTIFICATION/DESCRIPTION

Soil 36" Depth; Location #3 Collected: 7/28/93

1	ANALYSIS	RESULTS	UNITS	METHOD	· · · · · · · · · · · · · · · · · · ·
	Pyridine Benzene 2-Ethoxyethanol 2-Nitropropane	<5000.0 <250.0 <1000.0 <500.0	ug/kg ug/kg ug/kg ug/kg	SW-846 / 8240 SW-846 / 8240 SW-846 / 8240 SW-846 / 8240	
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Respectfully

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# TORY COMOUNT OF THE PROPERTY O

# RCP, INC.

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SAMPLE NO. 93-0212

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DATE OF REPORT 08-13-1993

PAGE 1

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 21

### SAMPLE IDENTIFICATION/DESCRIPTION

Soil 36" Depth; Location 4" Collected: 7/28/93

ANALYSIS	RESULTS	UNITS	METHOD
F001			
Tetrachloroethylene	<250.0	ug/kg	SW-846 / 8240
Trichloroethylene	<250.0	ug/kg	SW-846 / 8240
Methylene Chloride	<500.0	ug/kg	SW-846 / 8240
1,1,1-Trichloroethane	<250.0	ug/kg	SW-846 / 8240
Carbon Tetrachloride	<250.0	ug/kg	SW-846 / 8240
Chlorinated Flurocarbons	<500.0	ug/kg	SW-846 / 8240
F002			
Tetrachloroethylene	<250.0	ug/kg	SW-846 / 8240
Methylene Chloride	< 500.0	ug/kg	SW-846 / 8240
Trichloroethylene	< 250.0	ug/kg	SW-846 / 8240
1,1,1-Trichloroethane	<250.0	ug/kg	SW-846 / 8240
Chlorobenzene	< 250.0	ug/kg	SW-846 / 8240
1,1,2-Trichloro-	İ	_	
1,2,2~Trifluoroethane	< 250.0	ug/kg	SW-846 / 8240
1,2-Dichiorobenzene	<250.0	ug/kg	SW-846 / 8240
Trichlorofluoromethane	< 500.0	ug/kg	SW-846 / 8240
1,1,2-Trichloroethane	< 250.0	ug/kg	SW-846 / 8240
F003			
Xylene	<250.0	ug/kg ·	SW-846 / 8240
Acetone	k1000.0	ug/kg	SW-846 / 8240
Ethyl Acetatê	<250.0	ug/kg	SW-846 / 8240
Ethyl Benz <b>en</b> e	250.0	ug/kg	SW-846 / 8240
Ethyl Ether	<250.0	ug/kg	SW-846 / 8240
Methyl Isobutyl-		ļ	
Ketone	< 250.0	ug/kg	SW-846 / 8240
n-Butyl Alcohol	k 2 5 0 0 . 0	ug/kg	SW-846 / 8240
Cyclohexanone	k 2 5 0 0 • 0	ug/kg	SW-846 / 8270
Methanol	< 250.0	ug/kg	SW-846 / 8240
F 0 0 4			
Cresols	1	ug/kg	SW-846 / 8270
Cresylic Acid	3	ug/kg	SW-846 / 8270
Nitrobenzene	< 333	ug/kg	SW-846 / 8270
F005			
Toluene	8,100	ug/kg	SW-846 / 8240
Methyl Ethyl Ketone	<500.0	ug/kg	SW-846 / 8240
Carbon Disulfide	<500.0	ug/kg	SW-846 / 8240
lsobutanol	k2500.0	lug/kg	SW-846 / 8240

# CONTRACTOR 
# RCP, INC.

2246 S. Hamilton Rd. P.O. Box 32454 Columbus, Ohio 43232

(614) 864-6123

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

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# LABORATORY RESULTS

 SAMPLE NO.
 93-0213

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 DATE OF REPORT
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### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO.

PAGE

212

1

### SAMPLE IDENTIFICATION/DESCRIPTION 65

Distilled Water Rinse

ANALYSIS	RESULTS	UNITS	METHOD	
F 0 0 1				
Tetrachloroethylene	< 1.0	ug/kg	SW-846 / 8240	
Trichloroethylene	< 1.0	ug/kg	SW-846 / 8240	:
Methylene Chloride	< 2.0	ug/kg	SW-846 / 8240	
1,1,1-Trichloroethane	< 1.0	ug/kg	SW-846 / 8240	
Carbon Tetrachioride	< 1.0	ug/kg	SW-846 / 8240	:
Chlorinated Flurocarbons	< 3.0	ug/kg	SW-846 / 8240	İ
F002				i
Tetrachloroethylene	< 1.0	ug/kg	SW-846 / 8240	•
Methylene Chloride	< 2.0	ug/kg	SW-846 / 8240	
Trichloroethylene	< 1.0	ug/kg	SW-846 / 8240	
1,1,1-Trichioroethane	< 1.0	ug/kg	SW-846 / 8240	
Chlorobenzene	< 1.0	ug/kg	SW-846 / 8240	
1,1,2-Trichtoro-				
1,2,2-Trifluoroethane	< 1.0	ug/kg	SW-846 / 8240	:
1,2-Dichlorobenzene	< 1.0	ug/kg	SW-846 / 8240	;
Trichlorofluoromethane	< 2.0	ug/kg	SW-846 / 8240	1
1,1,2-Trichloroethane	< 1.0	ug/kg	SW-846 / 8240	!
F003				
(Xγ I e n e	< 1.0	ug/kg	SW-846 / 8240	:
Acetone	<10.0	ug/kg	SW-846 / 8240	
Ethyl Acetate	< 1.0	ug/kg	SW-846 / 8240	
Ethyl Benzene	< 1.0	ug/kg	SW-846 / 8240	
Ethyl Ether	< 1.0	ug/kg	SW-846 / 8240	
Methyl Isobutyi-		1	,	:
Ketone	< 5.0	ug/kg	SW-846 / 8240	:
n-Butyl Alcohol	< 25.0	ug/kg	SW-846 / 8240	1
Cyclohexanone	< 25.0	ug/kg	SW-846 / 8270	i
Methanol	N.D.	ug/kg	SW-846 / 8240	
"F 0 0 4				
Cresols	N.R.	ug/kg	SW-846 / 8270	
Cresylic Acid	N.R.	ug/kg	SW-846 / 8270	
Nitrobenzene	N.R.	ug/kg	SW-846 / 8270	
F005			}	
Toluene	< 1.0	ug/kg	SW-846 / 8240	:
Methy! Ethy! Ketone	< 2.0	ug/kg	SW-846 / 8240	i
Carbon Disulfide	< 2.0	ug/kg	SW-846 / 8240	
Isobutanol	< 25.0	lug/kg	SW-846 / 8240	

# TORY COARD

# RCP, INC.

2246 S. Hamilton Rd. P.O. Box 32454 Columbus, Ohio 43232 (614) 864-6123

6603-1214 Tanglewood Bay Dr. Orlando, Florida 32821 (407) 238-1614

EPA Approval No. 4160

**LABORATORY RESULTS** 

 SAMPLE NO.
 93-0213

 DATE RECEIVED
 08-06-1993

 DATE OF REPORT
 08-16-1993

PAGE

2

### **CLIENT INFORMATION**

Regency Enviro, Inc. P. O. Box 43221 Columbus, OH 43221 George Momirov COMPANY NO. 2 1 2

SAMPLE IDENTIFICATION/DESCRIPTION

Distilled Water Rinse

ANALYSIS	RESULTS	UNITS	METHOD
yridine	<50.0	ug/kg	SW-846 / 8240
en z en e	< 1.0	ug/kg	SW-846 / 8240
-Ethoxyethanol	<10.0	ug/kg	SW-846 / 8240
-Nitropropane	< 2.0	ug/kg	SW-846 / 8240
.D. = Not Detected		_ <del>-</del>	
.R. = Not Run			
<b>\</b>			
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Respectfully (

Alex Alexander



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Ä,

#### ADVANCED ANALYTICS LABORATORIES

1025 CONCORD AVENUE COLUMBUS, OHIO 43212 (614) 299-9922 FAX (614) 299-4002 Analysis & Testing . Quality Control Programs - Research & Development

April 23, 1993

Encore Environmental 344 West Henderson Road Columbus, Ohio 43214 ATTN: Brad Schneider

#### ANALYTICAL REPORT

PROJECT NO: 5406-00

SAMPLE NO'S: 78575 - 78577

EPA APPROVAL NO.: 4043

CLIENT PROJECT:

DATE RECEIVED: 04/13/93

DATE ANALYZED: 04/35/93

DATE REPORTED: 04/18/20

#### TEST RESULTS

AAL Sample ID:

78575/78576/78577 Composite

#1/#2/#3 Composite Client ID:

#### TCLP metals

Atsenic(mg/1)	< 0.020
Barium(mg/l)	<u> </u>
Cadmium(mg/l)	< 0.020 tr
Chromium(mg/l)	< 0,050 tr
Lead(mg/l)	< 0.1.00
Mercury(mg/1)	< 0.002
Selenium(mg/1)	< 0.020
Silvar(mg/1)	0.017

in = trace

Methodology: TCLP metals in extract by SW-846 Method 1311. EWarmen Methods: Arsenic by 7061 analysis. Barium by 3010 digestion and 7080 analysis. Cadmium by 3010 digestion and 7130 analysis. Chromium by 3010 digestion, 7190 analysis. Lead by 6010 digestion and 7420 analysis. Mercury by 7470 analysis. Selection by 7741 analysis. Silver by 7760 analysis.

Respectfully submitted,

L. Eve Karnitis, Chamist

A Walth Alwary dan Spectrophologoday

Gas Gerosestography - Inferse Spanteneropy - Unraviolectionine Spectrophotonessy

#### ADVANCED ANALYTICS LABORATORIES

1025 CONCORD AVENUE COLUMBUS, OHIO 48212 (614) 299-9922 FAX (614) 299-4002 Analysis & Testing - Quality Control Programs - Research & Development

April 23, 1993

Encore Environmental 344 West Henderson Road Columbus, Ohio 43214 ATTN: Brad Schneider

#### ANALYTICAL REPORT

PROJECT NO: 5406-00

SAMPLE NO'S: 78575 - 78577

EPA APPROVAL NO.: 4043

CLIENT PROJECT:

DATE RECEIVED: 04/13/93

DATE ANALYZED: 04/22/95 DATE REPORTED: 04/23/93

#### TEST RESULTS

AAL Sample ID:

78575/78576/78577 Composite

Client ID: #1/#2/#3 Composite

Component

TCLP Toluene(mg/l) 0,002

Methodology: TCLP Toluene by 8W-845 Method 9020.

Respectfully submitted,

L. Eve Karnitis, Chemist

teny francister,

#### ADVANCED ANALYTICS LABORATORIES

1025 CONCORD AVENUE
COLUMBUS, OHIO 43212
(614) 299-9922 FAX (614) 299-4002
Analysis & Testing - Quality Control Programs - Research & Development

April 23, 1993

Encore Environmental 344 West Henderson Road Columbus, Ohio 43214 ATTN: Brad Schneider

#### ANALYTICAL REPORT

FROJECT NO: 5406-00

SAMPLE NO'8: 78575 - 78577

EPA APPROVAL NO.: 4043

CLIENT PROJECT:

DATE RECEIVED: 04/13/93

DATE ANALYZED: 04/21/23

DATE REPORTED: 04/13, 31

#### TEST RESULTS

AAL Sample ID:

Client ID:

has Caramatagraphy inflative Sp. 12 to the provider reside Spectrophotometry month Absorption Spectrophotometry

78575/78576/78577 Composite

#1/#2/#3 Composite

GC/MS Semivolatile Praction

GC/MS analysis of sample #1/#2/#3 Composite shows the presence of Benzenedicarboxylic acid derivatives indicative of plastics material. Bis (2-ethylhexyl) phthalate is also present

Methodology: GC/MS Semivolatile Fraction by 8W-846 Method 5700

Respectfully submitted.

L. Eve Karnitis, Chemist

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-1-T

11/06/95 1000

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31228-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	12.53	mg/kg	EL	11/08/95	7190
Lead	17.78	mg/kg	EL	11/08/95	7420
Toluene	< 5	ug/kg	BAL	<b>1</b> 1/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-

Trifluorotoluene was 98%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-1-B

11/06/95 1000

Jim Parrish

Solid/Composite

11/06/95

ANALYSIS

SAMPLE LOG #:

31232-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	15.05	mg/kg	EL	11/08/95	7190
Lead	12.04	mg/kg	EL	11/08/95	7420
Toluene	16	ug/kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was 5 ug/kg. Calibration confirmed daily.

The % Recovery for alpha, alpha, alpha-Trifluorotoluene was 101%.

Report Date: 11/16/95

Report Released By:

X

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN

SAMPLER:

SAMPLE TYPE: DATE RECEIVED: Closure Report Plan West Side of Building

SB-2-T

11/06/95 1030

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31229-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	17.8	mg/kg	EL	11/08/95	7190
Lead	64.0	mg/kg	EL	11/08/95	7420
Toluene	<b>3</b> 51	ug/kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-

Trifluorotoluene was 100%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN

SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-2-B

11/06/95 1030

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31233-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium QC Duplicate	15.07 16.20	mg/kg	EL	11/08/95	7190
Lead QC Duplicate	20.89 29.59	mg/kg	EL	11/08/95	7420
Toluene	58	ug/kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-Trifluorotoluene was 101%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN

SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-3-T

11/06/95 1100

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31230-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	14.29	mg/kg	EL	11/08/95	7190
L <b>e</b> ad	15.66	m <b>g/k</b> g	EL	11/08/95	7420
Toluene	68,300	u <b>g</b> /kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-

Trifluorotoluene was 99%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN

SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-3-B

11/06/95 1100

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31234-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	13.52	mg/kg	EL	11/08/95	7190
Lead	8,55	mg/kg	EL	11 <b>/0</b> 8/95	7420
Toluene	78,800	ug/kg	BAL	<b>11/08</b> /95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-Trifluorotoluene was 88%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-4-T

**11/**06/95 1130

Jim Parrish

Solid/Composite

11/06/95

#### ANALYSIS

SAMPLE LOG #:

31231-999

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	7.98	mg/kg	EL	11/08/95	7190
Lead	22.75	mg/kg	EL	11/08/95	7420
Toluene	142	ug/kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily.
The % Recovery for alpha, alpha, alpha-

Trifluorotoluene was 96%.

Report Date: 11/16/95

Report Released By:

Ed Lockwood Jr., President

PROJECT ID:

PROJECT LOCATION:

SAMPLE ID:

DATE TAKEN SAMPLER:

SAMPLE TYPE:

DATE RECEIVED:

Closure Report Plan West Side of Building

SB-4-B

11/06/95 1130

Jim Parrish

Solid/Composite

11/06/95

ANALYSIS

31235-999 SAMPLE LOG #:

TEST	RESULT	UNITS	ANALYST	DATE	METHOD
Chromium	8.61	mg/k <b>g</b>	EL	11/08/95	7190
Lead	7.95	mg/kg	EL	11/08/95	7420
Toluene	1,600	ug/kg	BAL	11/08/95	8240

Analysis Notes:

Detection Limit for Toluene was

5 ug/kg. Calibration confirmed daily. The % Recovery for alpha, alpha, alpha-

Trifluorotoluene was 95%.

Lockwood Laboratories

P.O. Box 2728

1001 East St.

# A Springfield Environmental Inc. Company

FAX: (513) 324-5185 Tel: (513) 324-8001 Springfield, OH 45501-2728

CHAIN OF CUSTODY

CLIENT	DESTON CAL		7	4	ROJEC	PROJECT NAME		CLOSCA	Ñ	LEDER	J Row	SDWA
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SAMPLES RECEI	SAMPLES RECEIVED IN LAB BY:	MC	Di D	Rh	(C)	À TIME	1051		DATE //	11/0/95		
TERMS & CONDITIONS	ITIONS			_							TANKS XX ACTION OF THE SECOND	THE REAL PROPERTY OF THE PROPE

Submission of Chain of Custody and samples constitutes an agreement to perform the analysis and the client agrees to pay for any analyses completed prior to a notification "not to proceed". Payment terms are NET 30 Days with approved credit. A 2% discount is eveilable far payments within 10 Days. Past due invaices are subject to a finance charge.

Samples found to be "hazardous" will be returned to the client for disposal. Radioactive samples will not be accepted.

The fee structure reflects our normol QC/QA protocol. Additional QC/QA will require a surcharge. Complex samples may incur an additional prap charge. Client will be notified before lab proceeds. 26.4.7.9.7

TURNAROUND TIME (TAT) is usually one week or less. Every effort will be made to accommodate RUSH samples. Additional charges, up to 100%, may be added depending on the time raquirements. ADVANCE NOTIFICATION OF RUSH SAMPLES IS APPRECIATED!

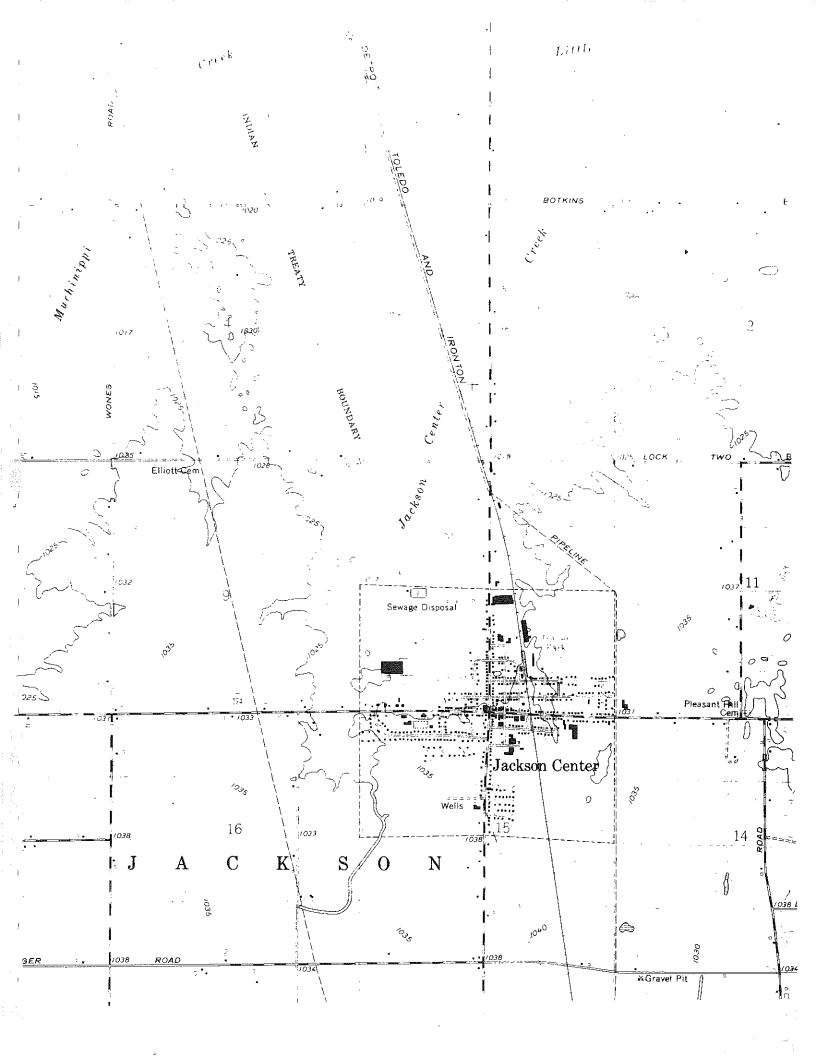
Confidentiality of all data and customer information is strictly adhered to by Lockwood Laboratories and Springfield Environmental.

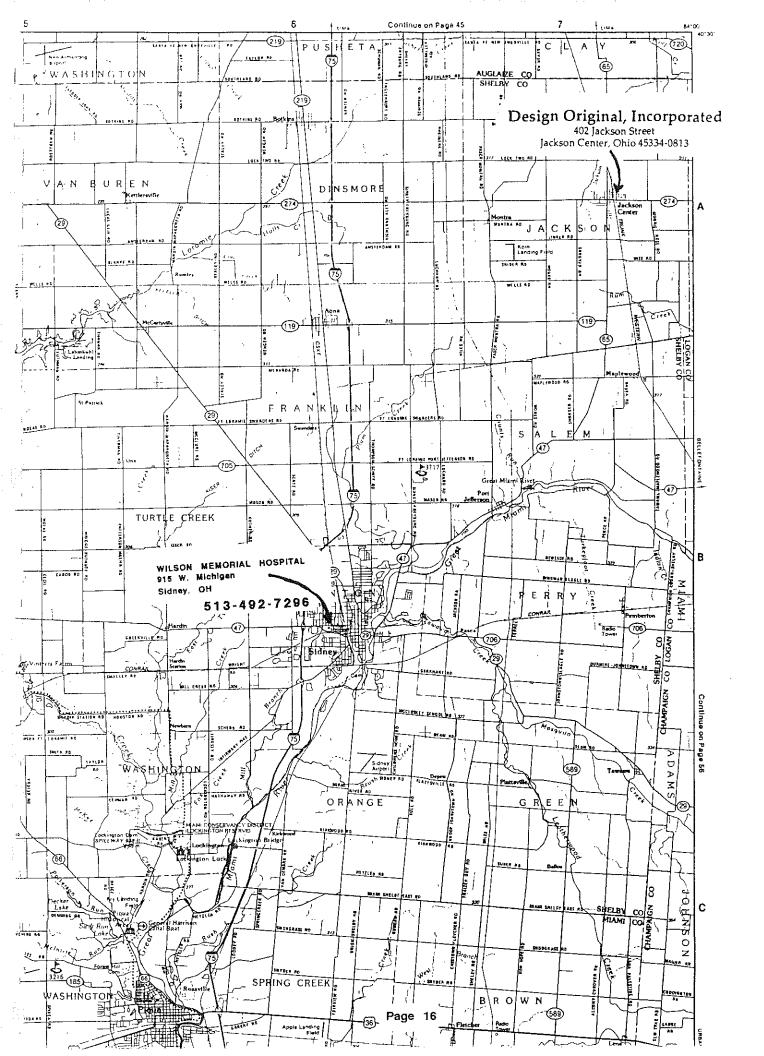
Samples will be analyzed in accordance with approved & standard test proceduras to the best of our ability. Lockwood Laboratories, however, cannot be held responsible for the causequences of the data reported and its half be liable only for the monetary value of the tests to the consequences of the data reported and its half be liable only for the monetary value of the tests to the consequences of the data reported and its half be liable only for the monetary value of the tests.

# BACKGROUND HEAVY METAL CONC. IN OHIO SOILS

METAL	NO.	MEAN	STD. D	EV.
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PB	239	19	5	
ZN	239	75	15	
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N	239	18	5	a ja
CD	237	0.2	0.3	
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APPENDIX "B" REGIONAL MAPS





APPENDIX "C" ROLL-OFF TCLP TEST RESULTS

# **ABORATORIES**

## Certificate of Analysis

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

Report Date: 05/03/96

JACKSON CENTER OH 45334-0183

Report Released By:

For Joseph Chaffin, Lab Mgr.

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons

DATE TAKEN:

04/26/96 1930

DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33764-999

#### ANALYSIS

EPA HW NUMBER	CONTAMINANT	REGULATORY LEV	JEL(mg/l) REST	JLTS(mq/l)
•			1	
D007	Chromium	5.0	<	0.050
D008	Lead	5.0	<	0.100
D018	Benzene	0.5	<	0.100
D019	Carbon Tetrachlo	ride 0.5	<	0.100
D021	Chlorobenzene	100.0	<	0.100
D022	Chloroform	6.0	<	0.100
D027	1,4-Dichlorobenz	ene 7.5	<	0.100
D028	1,2-Dichloroetha	ne 0.5	<	0.100
D029	1,1-Dichloroethy	lene 0.7	<	0.100
D035	Methyl ethyl ket	one 200.0	<	0.500
D039	Tetrachloroethyl	ene 0.7	<	0.100
D040	Trichloroethylen	e 0.5	<	0.100
D043	Vinyl Chloride	0.2	<	0.100

- TCLP by Method SW846-1311.
- Volatile analysis by Method 8260.
- Metals analysis by 7000 series (AA).

# OCKWOOD \_\_\_

## Certificate of Analysis

FRANK PUSEY
DESIGN ORIGINALS
402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/03/96

Report Released By:

For Joseph Chaffin, Lab Mgr.

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

#2

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons

DATE TAKEN:

04/26/96 1930

DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33765-999

#### ANALYSIS

EPA HW NUMBER	CONTAMINANT F	EGULATORY LEVEL(mg/l	) RESI	ULTS(mg/l)
D007	Chromium	5.0	<	0.050
D008	Lead	5.0	<	0.100
D018	Benzene	0.5	<	0.100
D019	Carbon Tetrachlor	ide 0.5	<	0.100
D021	Chlorobenzene	100.0	<	0.100
D022	Chloroform	6.0	<	0.100
D027	1,4-Dichlorobenze	ne 7.5	<	0.100
D028	1,2-Dichloroethan	e 0.5	<	0.100
D029	1,1-Dichloroethyl	ene 0.7	<	0.100
D035	Methyl ethyl keto	ne 200.0	<	0.500
D039	Tetrachloroethyle	ne 0.7	<	0.100
D040	Trichloroethylene	0.5	<	0.100
D043	Vinyl Chloride	0.2	<	0.100

- 1. TCLP by Method SW846-1311.
- 2. Volatile analysis by Method 8260.
- 3. Metals analysis by 7000 series (AA).

# OCKWOOD \_\_\_\_

### Certificate of Analysis

FRANK PUSEY
DESIGN ORIGINALS
402 JACKSON STREET
JACKSON CENTER OH 45334-0183

Report Date: 05/03/96

Report Released By:

Joseph Chaffin, Lab Mgr.

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

#3

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons

DATE TAKEN:

04/26/96 1930

DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33766-999

#### ANALYSIS

EPA HW NUMBER	CONTAMINANT	REGULATORY LEVEL(mg/	l) RESULTS(mg/l)
D007	Chromium	5.0	< 0.050
D008	Lead	5.0	< 0.100
D018	Benzene	0.5	< 0.100
D019	Carbon Tetrachlo	oride 0.5	< 0.100
D021	Chlorobenzene	100.0	< 0.100
D022	Chloroform	6.0	< 0.100
D027	1,4-Dichlorobenz	zene 7.5	< 0.100
D028	1,2-Dichloroetha	ne 0.5	< 0.100
D029	1,1-Dichloroethy		< 0.100
D035	Methyl ethyl ket		< 0.500
D039	Tetrachloroethy)		< 0.100
D040	Trichloroethyler		< 0.100
D043	Vinyl Chloride	0.2	< 0.100

- TCLP by Method SW846-1311.
- Volatile analysis by Method 8260.
- 3. Metals analysis by 7000 series (AA).

# OCKWOOD \_\_\_\_

### Certificate of Analysis

FRANK PUSEY
DESIGN ORIGINALS
402 JACKSON STREET
JACKSON CENTER OH 45334-0183

Report Date: 05/03/96

Report Released By:

Joseph Chaffin, Lab Mgr

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

#4

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons 04/26/96 1930

DATE TAKEN:
DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33767-999

#### ANALYSIS

EPA HW NUMBER	<u>CONTAMINANT</u>	REGULATORY LEVEL(mq/l	) RESULTS(mg/l)
D007	Chromium	5.0	< 0.050
D008	Lead	5.0	< 0.100
D010	Почломо	0 F	< 0.100
D018	Benzene	0.5	< 0.100
D019	Carbon Tetrachlo	ride 0.5	< 0.100
D021	Chlorobenzene	100.0	< 0.100
D022	Chloroform	6.0	< 0.100
D027	1,4-Dichlorobenze	ene 7.5	< 0.100
D028	1,2-Dichloroethan	ne 0.5	< 0.100
D029	1,1-Dichloroethy	lene 0.7	< 0.100
D035	Methyl ethyl keto	one 200.0	< 0.500
D039	Tetrachloroethyle	ene 0.7	< 0.100
D040	Trichloroethylene	0.5	< 0.100
D043	Vinyl Chloride	0.2	< 0.100

- 1. TCLP by Method SW846-1311.
- 2. Volatile analysis by Method 8260.
- 3. Metals analysis by 7000 series (AA).

# ABORATORIES

## Certificate of Analysis

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET JACKSON CENTER OH 45334-0183 Report Date: 05/03/96

Report Released By:

Joseph Chaffin, Lab Mgr.

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons 04/26/96 1930

DATE TAKEN: DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33768-999

#### <u>ANALYSIS</u>

EPA HW			:		
<u>NUMBER</u>	CONTAMINANT	REGULATORY	LEVEL(mg/1)	RESU	JLTS(mq/1)
D007	Chromium	į	5.0	<	0.050
D008	Lead	į	5.0	<	0.100
			•		
D018	Benzene	(	D <b>.</b> 5	<	0.100
D019	Carbon Tetrachlo	ride (	D.5	<	0.100
D021	Chlorobenzene	100	0.0	<	0.100
D022	Chloroform	(	5.0	<	0.100
D027	1,4-Dichlorobenz	zene :	7.5	<	0.100
D028	1,2-Dichloroetha	ine (	D <b>.</b> 5	<	0.100
D029	1,1-Dichloroethy	lene (	0.7	<	0.100
D035	Methyl ethyl ket	one 200	0.0	<	0.500
D039	Tetrachloroethy]	lene (	<b>7</b> .7	<	0.100
D040	Trichloroethyler	ne (	).5	<	0.100
D043	Vinyl Chloride	(	0.2	<	0.100
			· ·		•

- TCLP by Method SW846-1311.
- Volatile analysis by Method 8260.
- Metals analysis by 7000 series (AA).

# OCKWOOD \_\_\_

# Certificate of Analysis

FRANK PUSEY
DESIGN ORIGINALS
402 JACKSON STREET
JACKSON CENTER OH 45334-0183

Report Date: 05/03/96

Report Released By:

For Joseph Chaffin, Lab Mgr.

PROJECT NAME:

Remediation/Roll Off

SAMPLE ID:

#6

SAMPLE TYPE:

Solid/Composite

SAMPLER:

Fred Fitzsimmons

DATE TAKEN:

04/26/96 1930

DATE RECEIVED:

04/29/96

SAMPLE LOG #:

33769-999

#### ANALYSIS

EPA HW	CONTOUR METALENIA NO.		) DECLIT MC ( / 1 )
NUMBER	CONTAMINANT I	REGULATORY LEVEL(mg/l	<u> RESULTS(mg/l)</u>
		•	
D007	Chromium	5.0	< 0.050
D008	Lead	5.0	< 0.100
D018	Benzene	0.5	< 0.100
D019	Carbon Tetrachlo	ride 0.5	< 0.100
D021	Chlorobenzene	100.0	< 0.100
D022	Chloroform	6.0	< 0.100
D027	1,4-Dichlorobenze	ene 7.5	< 0.100
D028	1,2-Dichloroethar	ne 0.5	< 0.100
D029	1,1-Dichloroethy	lene 0.7	< 0.100
D035	Methyl ethyl keto	one 200.0	< 0.500
D039	Tetrachloroethyle	ene 0.7	< 0.100
D040	Trichloroethylene	e 0.5	< 0.100
D043	Vinyl Chloride	0.2	< 0.100

- 1. TCLP by Method SW846-1311.
- 2. Volatile analysis by Method 8260.
- 3. Metals analysis by 7000 series (AA).

### Certificate of Analysis

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/03/96

Report Released By:

PROJECT NAME:

SAMPLE ID:

SAMPLE TYPE:

SAMPLER:

DATE TAKEN:

DATE RECEIVED:

Remediation/Roll Off

Solid/Composite Fred Fitzsimmons

04/26/96 1930

04/29/96

SAMPLE LOG #:

33769-999 **QC DUPLICATE** 

#### ANALYSIS

EPA HW

NUMBER	CONTAMINANT	REGULATORY LEVEL(mq/1)	RESULTS(mq/1)
D007	Chromium	5.0	< 0.050
D008	Lead	5.0	< 0.100

- 1. TCLP by Method SW846-1311.
- Metals analysis by 7000 series (AA).

# OCKWOOD ABORATORIES

### Certificate of Analysis

FRANK PUSEY
DESIGN ORIGINALS
402 JACKSON STREET
JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

Joseph Chaffin, Lab/Mgr.

PROJECT NAME: SAMPLE ID: SAMPLE TYPE:

SAMPLE TYPE: SAMPLER: DATE TAKEN:

DATE RECEIVED:

Remediation/Roll Off Composite/Roll Offs

Soil/Composite Fred Fitzsimmons 04/26/96 1930

04/29/96

SAMPLE LOG #:

33764-33769-999

**ANALYSIS** 

EPA HW
TEST RESULTS UNITS ANALYST DATE METHOD
Flashpoint > 200 F JC 05/07/96 1010

Lockwood Laboratories

# A Springfield Environmental Inc. Company

FAX: (513) 324-5185 Springfield, OH 45501-2728 Tel: (513) 324-8001

CHAIN OF CUSTODY

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A Minimum in the common of the	4111111													

- 1. Minimum invoice amount is \$25.00
  2. Payment terms are NET 30 Days with approved credit. A 2% discount is available for payments within 10 Days. Past due invoices are subject to a finance charge.
  3. Submission of Chain of Custody and samples constitutes an agreement to perform the analysis and the client analysis and the client for disposal. Redioactive samples will not be eccepted.
  4. Samples found to be "hazardous" will be returned to the client for disposal. Redioactive samples will not be eccepted.
  5. Complex samples may incur an additional prep charge. Client will be notified before lab proceede.
  6. The fee structure reflects our normal QC/QA protocol. Additional QC/QA will require a surcharge.
  7. TURNAROUND TIME (TAT) is usually one week or less. Every effort will be made to accommodate RUSH samples. Additional charges, up to 100%, may be edded depending on the time requirements. ADVANCE NOTIFICATION OF RUSH SAMPLES IS APPRECIATED!
  - Confidentiality of all data and customer information is strictly edhered to by Lockwood Laboratories and Springfield Environmental.
- Samples will be analyzed in accordance with approved & standard test procedures to the best of our ability. Lockwood Laboratories, however, cannot be held responsible for the representativeness of the semple. In no event shall Lockwood Laboratories be held liable for the consequences of the data reported and its use, and shall be liable only for the monetary value of the tests.

APPENDIX "D" ROLL-OFF "TOTAL" TEST RESULTS

# OCKWOOD .....

### Certificate of Analysis

Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/15/96

Report Released By:

For Joseph Chaffin, Lab Mgr.

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE: DATE TAKEN:

DATE RECEIVED:

Remediation Roll Off #1

Fred Fitzsimmons

nm

Solid/Composite 04/26/96 1930

04/29/96

ANALYSIS

SAMPLE LOG #:

33764-999

			Γ	ETECTION
COMPONENT	CONCENT	RATION	(ug/kg)	LIMIT_
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	<	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1,3-Dichlorobenzene	<	5		5



# Certificate of Analysis

Page 2 of 2

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #1 33764-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5 < 5		5
trans-1,2-Dichloroethene			5
1,2-Dichloropropane	< 5 < 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5 < 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	. < 5	•	5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5	*	5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.

# **ABORATORIES**

### Certificate of Analysis

Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

JACKSON CENTER OH 45334-0183

05/15/96

Report Date:

Report Released By:

Joseph Chaffin, Lab Mgr.

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN: DATE RECEIVED:

Remediation Roll Off #2

Fred Fitzsimmons

Solid/Composite 04/26/96 1930

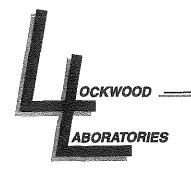
04/29/96

#### ANALYSIS

SAMPLE LOG #:

33765-999

			D	ETECTION
COMPONENT	CONCENT	RATION	(ug/kg)	<u>LIMIT</u>
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5	*	5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	<	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5	•	5
1,3-Dichlorobenzene	<	5		5



# Certificate of Analysis

Page 2 of 2

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #2 33765-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5 < 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5 5 5 5
cis-1,3-Dichloropropene	< 5 < 5 < 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5 5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5	•	5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	· < 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.

# Certificate of Analysis

Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET JACKSON CENTER OH 45334-0183 Report Date: 05/15/96

Report Released By:

Fn Joseph Chaffin, Lab Mgr.

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN: DATE RECEIVED: Remediation Roll Off #3

Fred Fitzsimmons

Solid/Composite 04/26/96 1930

04/29/96

**ANALYSIS** 

SAMPLE LOG #:

33766-999

		Ε	ETECTION
COMPONENT	CONCENTRATION	(ug/kg)	LIMIT_
Acetone	< 100		100
Acetonitrile	< 50		50
Acrolein	< 100		100
Acrylonitrile	< 100		100
Allyl Chloride	< 50		50
Benzene	< 5		5
Bromodichloromethane	< 5		5
Bromoform	< 5		5
Bromomethane	< 10		10
2-Butanone	< 50		50
Carbon Disulfide	< 10		10
Carbon Tetrachloride	< 5		5
Chlorobenzene	< 5		5
Chloroethane	< 10		10
2-Chloroethyl Vinyl Ether	< 10		10
Chloroform	< 5		5
Chloromethane	< 10		10
Dibromochloromethane	· < 5	i	5
1,2-Dibromo-3-chloropropane	< 50		50
1,2-Dibromoethane	< 5	•	5
1,2-Dichlorobenzene	< 5		5
1,3-Dichlorobenzene	< 5		5

# OCKWOOD \_\_\_

# Certificate of Analysis

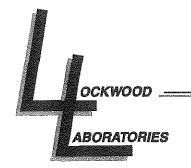
Page 2 of 2

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #3 33766-999

COMPONENT	CONCENTRATIO	N (ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< Ś		5
trans-1,2-Dichloroethene			5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5; < 5; < 5; < 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	. < 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10	•	10
m-and p- Xylene	< 5	•	5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.



### Certificate of Analysis

Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET JACKSON CENTER OH 45334-0183 Report Date: 05/15/96

Report Released By:

Joseph Chaffin, Lab Mgr.

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN: DATE RECEIVED: Remediation

Roll Off #4

Fred Fitzsimmons

Solid/Composite 04/26/96 1930

04/29/96

ANALYSIS

SAMPLE LOG #:

33767-999

			D	ETECTION
COMPONENT	CONCENT	RATION	(ug/kg)	LIMIT
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	• <	5		5
1,2-Dibromo-3-chloropropane	<	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1.3-Dichlorobenzene	<	5.		5

# OCKWOOD \_\_\_

# Certificate of Analysis

Page 2 of 2

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #4 33767-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		. 5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5	•	5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5	:	5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.

# OCKWOOD **ABORATORIES**

## Certificate of Analysis

Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/15/96

Report Released By:

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE: DATE TAKEN:

DATE RECEIVED:

Fred Fitzsimmons

Remediation Roll Off #5

Solid/Composite 04/26/96 1930

04/29/96

#### <u>ANALYSIS</u>

SAMPLE LOG #:

33768-999

			DETECTION
COMPONENT	CONCENTRAT	ON (ug/kg)	<u>LIMIT</u>
Acetone	< 100	)	100 —
Acetonitrile	< 50	)	50
Acrolein	< 100	)	100
Acrylonitrile	< 100	)	100
Allyl Chloride	< 50		50
Benzene	< 5		5
Bromodichloromethane	< 5		5
Bromoform	< 5		5
Bromomethane	< 10	1	10
2-Butanone	< 50		50
Carbon Disulfide	< 10	1	10
Carbon Tetrachloride	< 5		5
Chlorobenzene	< 5		5
Chloroethane	< 10		10
2-Chloroethyl Vinyl Ether	< 10	:	10
Chloroform	< 5		5
Chloromethane	< 10		10
Dibromochloromethane	< 5		5
1,2-Dibromo-3-chloropropane	< 50		5 <b>0</b>
1,2-Dibromoethane	< 5		5
1,2-Dichlorobenzene	< 5		5
1,3-Dichlorobenzene	< 5		5



Page 2 of 2

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #5 33768-999

COMPONENT	CONCENTRATION	(uq/kq)	D.L.
1,4-Dichlorobenzene	< 5	<del> </del>	
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5 < 5		5
trans-1,2-Dichloroethene	· < 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5 < 5 < 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5	•	5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.



Page 1 of 2

FRANK PUSEY DESIGN ORIGINALS 402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/15/96

Report Released By:

Joseph Chaffin, Lab Mgr.

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE: DATE TAKEN:

DATE RECEIVED:

Remediation

Roll Off #6

Fred Fitzsimmons

Solid/Composite 04/26/96

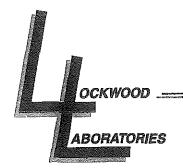
04/29/96

**ANALYSIS** 

SAMPLE LOG #:

33769-999

			D	ETECTION
COMPONENT	CONCENTRA	MOITA	(ug/kg)	LIMIT
Acetone	< :	100		100
Acetonitrile	<	50		50
Acrolein	< :	100		100
Acrylonitrile	< :	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5	•	5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	. 5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	<	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1,3-Dichlorobenzene	<	5		5



Page 2 of 2

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: Roll Off #6 33769-999

COMPONENT	CONCENT	RATION	(uq/kq)	D.L.
1,4-Dichlorobenzene	<	5		5
trans-1,4-Dichloro-2-butene	<	5		5
Dichlorodifluoromethane	<	10		10
1,1-Dichloroethane	<	5		5
1,2-Dichloroethane	<	5		5
1,1-Dichloroethene	<	5 5 5 5 5 5		5
trans-1,2-Dichloroethene	<	5		5
1,2-Dichloropropane	<	5		5
cis-1,3-Dichloropropene	<	5		5
trans-1,3-Dichloropropene	<			5
Diethyl Ether	<	5		5
Ethyl Methacrylate	<	50		50
Ethylbenzene	<	5		5
2-Hexanone	<	50		50
Methacrylonitrile	<	50		50
Methyl Iodide	<	10	•	10
Methyl Methacrylate	<	50		50
Methylene Chloride	<	10		10
4-Methyl-2-Pentanone	<sup>'</sup> <	50		50
Styrene	<	5 .		5
1, 1, 1, 2-Tetrachloroethane	<	5		5
1,1,2,2-Tetrachloroethane	<	5		5
Tetrachloroethene	<	5		5
Toluene	300			5
1,1,1-Trichloroethane	<	5	• .	5
1,1,2-Trichloroethane	<	5		5
Trichloroethene	<	5		5
Trichlorofluoromethane	<	10		10
1,2,3-Trichloropropane	<	5		5
Vinyl Acetate	_ <	50		50
Vinyl Chloride	<	10		10
m-and p- Xylene	.<	5		5
o-Xylene	. <	5	•	5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/15/96.

APPENDIX "E" SITE CLOSURE TEST RESULTS

## OCKWOOD \_\_\_\_

### Certificate of Analysis

Page 1 of 3

FRANK PUSEY

DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

seph Chaffin,

PROJECT NAME:

PROJECT NAME.

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN:

DATE RECEIVED:

Remediation Closure

17

Fred Fitzsimmons

Clark

Solid/Grab

04/26/96 1930

04/29/96

**ANALYSIS** 

SAMPLE LOG #:

33770-999

		Γ	ETECTION
COMPONENT	CONCENTRATION	(ug/kg)	LIMIT_
Acetone	< 100		100
Acetonitrile	< 50		50
Acrolein	< 100		100
Acrylonitrile	< 100		100
Allyl Chloride	< 50		50
Benzene	< 5		5
Bromodichloromethane	< 5		5
Bromoform	< 5		5
Bromomethane	< 10		10
2-Butanone	< 50	·	5 <b>0</b>
Carbon Disulfide	< 10		10
Carbon Tetrachloride	< 5	•	5
Chlorobenzene	< 5 .		5
Chloroethane	< 10		10
2-Chloroethyl Vinyl Ether	< 10		10
Chloroform	<b>&lt; 5</b> ,		5
Chloromethane	< 10	•	10
Dibromochloromethane	< 5		5
1,2-Dibromo-3-chloropropane	< 50		5 <b>0</b>
1,2-Dibromoethane	< 5		5
1,2-Dichlorobenzene	< 5		5
1.3-Dichlorobenzene	< 5		5

# OCKWOOD \_\_\_\_

### Certificate of Analysis

Page 2 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

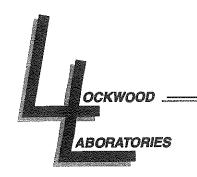
1A

SAMPLE LOG #:

33770-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5	•	5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10	•	10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5	•	5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< . 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5	-	5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.



Page 3 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

1A

SAMPLE LOG #:

33770-999

<u>ANALYSIS</u>

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
Chromium	16.54	mg/kg	EL	04/29/96	7190
Lead	36.52	mg/kg	EL	04/29/96	7420

## **ABORATORIES**

### Certificate of Analysis

Page 1 of 3

FRANK PUSEY DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN:

DATE RECEIVED:

Remediation Closure

1C

Fred Fitzsimmons

Clark

Solid/Grab

04/26/96 1930

04/29/96

#### ANALYSIS

SAMPLE LOG #:

33771-999

21111 L. 200 // 1				
			D	ETECTION
COMPONENT	CONCENT	RATION	(ug/kg)	LIMIT
Acetone	<	100		100 —
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropa	ne <	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1,3-Dichlorobenzene	<	5		5



Page 2 of 3

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID:

1C

SAMPLE LOG #:

33771-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5 —
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5. < 5		5
trans-1,3-Dichloropropene			5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5	•	5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5	•	5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.

## OCKWOOD \_\_\_\_

### Certificate of Analysis

Page 3 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

1C

SAMPLE LOG #:

33771-999

<u>ANALYSIS</u>

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
Chromium	9.61	mg/kg	EL	04/29/96	7190
Lead	9.61	mg/kg	EL	04/29/96	7420

## **ABORATORIES**

#### Certificate of Analysis

Page 1 of 3

FRANK PUSEY DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE: DATE TAKEN:

DATE RECEIVED:

Remediation Closure

Fred Fitzsimmons

Clark

Solid/Grab

04/26/96 1930

04/29/96

#### ANALYSIS

SAMPLE LOG #:

33772-999

			D	ETECTION
COMPONENT	CONCENT	RATION_	(ug/kg)	LIMIT_
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	<u>5</u> 5		5
Bromodichloromethane	<			5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	• <	50	:	50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5	4	5
1,3-Dichlorobenzene	<	5		5

## OCKWOOD \_\_\_

#### Certificate of Analysis

Page 2 of 3

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID:

2.A

SAMPLE LOG #:

33772-999

COMPONENT	CONCENTRATION	(uq/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5 < 5		5
trans-1,2-Dichloroethene			5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5 <sub>.</sub>		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.

# OCKWOOD ABORATORIES

#### Certificate of Analysis

Page 3 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

2A

SAMPLE LOG #:

33772-999

<u>ANALYSIS</u>

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
Chromium	10.61	mg/kg	EL	04/29/96	7190
Lead	12.99	mg/kg	EL	04/29/96	7420

## OCKWOOD \_\_\_\_

#### Certificate of Analysis

Page 1 of 3

FRANK PUSEY

DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

seph Chaffin,

PROJECT NAME:

TROUBEL MIME

SAMPLE ID:

SAMPLER:

COUNTY:

COUNTY:

SAMPLE TYPE:

DATE TAKEN:

DATE RECEIVED:

Remediation Closure

2C

Fred Fitzsimmons

Clark

Solid/Grab

04/26/96 1930

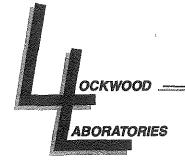
04/29/96

ANALYSIS

SAMPLE LOG #:

33773-999

			D	ETECTION
COMPONENT	CONCENTR	NOITAS	(ug/kg)	LIMIT
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	. <	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1,3-Dichlorobenzene	. <	5		5



Page 2 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

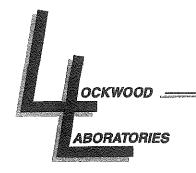
2C

SAMPLE LOG #:

33773-999

<u>COMPONENT</u>	<u>CONCENTRATION</u>	_(uq/kq)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5 < 5		5
trans-1,2-Dichloroethene	. < 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Todide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.



Page 3 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

2C

SAMPLE LOG #:

33773-999

<u>ANALYSIS</u>

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
		011110			HINTHOD
Chromium	13.64	mg/kg	EL	04/29/96	7190
Lead	22.84	mg/kg	EL	04/29/96	7420

Page 1 of 3

FRANK PUSEY

DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

PROJECT NAME:

SAMPLE ID:

SAMPLER:

COUNTY:

SAMPLE TYPE:

DATE TAKEN:

DATE RECEIVED:

Remediation Closure

Fred Fitzsimmons

Clark

Solid/Grab

04/26/96 1930

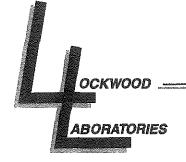
04/29/96

ANALYSIS

SAMPLE LOG #:

33774-999

		DETECTION
COMPONENT	CONCENTRATION	(ug/kg) LIMIT
Acetone	< 100	100
Acetonitrile	< 50	50
Acrolein	< 100	100
Acrylonitrile	< 100	100
Allyl Chloride	< 50	50
Benzene	< 5	5
Bromodichloromethane	< .5	5
Bromoform	< 5	5
Bromomethane	< 10	10
2-Butanone	< 50	50
Carbon Disulfide	< 10	10
Carbon Tetrachloride	< 5	5
Chlorobenzene	< 5	5
Chloroethane	< 10	10
2-Chloroethyl Vinyl Ether	< 10	10
Chloroform	< 5	5
Chloromethane	< 10	10
Dibromochloromethane	< 5	5
1,2-Dibromo-3-chloropropane	< 50	50
1,2-Dibromoethane	< 5	5
1,2-Dichlorobenzene	< 5	5
1,3-Dichlorobenzene	< 5	5



Page 2 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

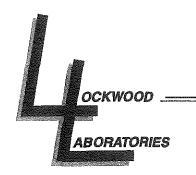
3 A

SAMPLE LOG #:

33774-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	< 5		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	< 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< .5		5
Trichloroethene	< 5	٠	5
Trichlorofluoromethane	< 10		10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10	•	10
m-and p- Xylene	< 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.



Page 3 of 3

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID: SAMPLE LOG #: 3A

33774-999

ANALYSIS

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
Chromium	10.78	mg/kg	EL	04/29/96	7190
Lead	31.10	mg/kg	EL	04/29/96	7420

## OCKWOOD \_\_\_\_

### Certificate of Analysis

Page 1 of 3

FRANK PUSEY

DESIGN ORIGINALS

402 JACKSON STREET

JACKSON CENTER OH 45334-0183

Report Date: 05/07/96

Report Released By:

oseph Chaffin,

PROJECT NAME:

SAMPLE ID:

3 C

SAMPLER:

Fred Fitzsimmons

Remediation Closure

COUNTY: Clark

SAMPLE TYPE:

Solid/Grab

DATE TAKEN:

04/26/96 1930

DATE RECEIVED:

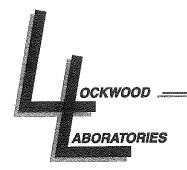
04/29/96

**ANALYSIS** 

SAMPLE LOG #:

33775-999

		*	D	ETECTION
COMPONENT	CONCENT	RATION	(ug/kg)	LIMIT
Acetone	<	100		100
Acetonitrile	<	50		50
Acrolein	<	100		100
Acrylonitrile	<	100		100
Allyl Chloride	<	50		50
Benzene	<	5		5
Bromodichloromethane	<	5		5
Bromoform	<	5		5
Bromomethane	<	10		10
2-Butanone	<	50		50
Carbon Disulfide	<	10		10
Carbon Tetrachloride	<	5		5
Chlorobenzene	<	5		5
Chloroethane	<	10		10
2-Chloroethyl Vinyl Ether	<	10		10
Chloroform	<	5		5
Chloromethane	<	10		10
Dibromochloromethane	<	5		5
1,2-Dibromo-3-chloropropane	<	50		50
1,2-Dibromoethane	<	5		5
1,2-Dichlorobenzene	<	5		5
1,3-Dichlorobenzene	<b>.</b> <	5		5



Page 2 of 3

FRANK PUSEY
DESIGN ORIGINALS

SAMPLE ID:

3C

SAMPLE LOG #:

33775-999

COMPONENT	CONCENTRATION	(ug/kg)	D.L.
1,4-Dichlorobenzene	< 5		5
trans-1,4-Dichloro-2-butene	< 5		5
Dichlorodifluoromethane	< 10		10
1,1-Dichloroethane	< 5		5
1,2-Dichloroethane	< 5		5
1,1-Dichloroethene	< 5		5
trans-1,2-Dichloroethene	< 5		5
1,2-Dichloropropane	< 5		5
cis-1,3-Dichloropropene	< 5		5
trans-1,3-Dichloropropene	<pre>&lt; 5 5 5 5 5 5 5 5</pre>		5
Diethyl Ether	< 5		5
Ethyl Methacrylate	< 50		50
Ethylbenzene	< 5		5
2-Hexanone	< 50		50
Methacrylonitrile	< 50		50
Methyl Iodide	< 10		10
Methyl Methacrylate	< 50		50
Methylene Chloride	< 10		10
4-Methyl-2-Pentanone	< 50		50
Styrene	< 5		5
1,1,1,2-Tetrachloroethane	. < 5		5
1,1,2,2-Tetrachloroethane	< 5		5
Tetrachloroethene	< 5		5
Toluene	< 5		5
1,1,1-Trichloroethane	< 5		5
1,1,2-Trichloroethane	< 5		5
Trichloroethene	< 5		5
Trichlorofluoromethane	< 10	•	10
1,2,3-Trichloropropane	< 5		5
Vinyl Acetate	< 50		50
Vinyl Chloride	< 10		10
m-and p- Xylene	. < 5		5
o-Xylene	< 5		5

METHODOLOGY: Volatiles by Method SW846 8240, analyzed by BAL on 05/01/96.

# OCKWOOD \_\_\_\_

### Certificate of Analysis

Page 3 of 3

FRANK PUSEY DESIGN ORIGINALS

SAMPLE ID:

3C

SAMPLE LOG #:

33775-999

ANALYSIS

TEST	RESULTS	UNITS	ANALYST	DATE	METHOD
Chromium	11.25	mg/kg	EL	04/29/96	7190
Lead	17.74	mg/kg	EL	04/29/96	7420

Lockwood Laboratories
1001 East St. P.O. Box 2728

A Springfield Environmental Inc. Company

Springfield, OH 45501-2728 Tel: (513) 324-8001 FAX: (513) 324-5185

CHAIN OF CUSTODY

CLIENT	DASIGN CAGUNALS	CURACS:		PROJEC	PROJECT NAME	XX	ついるとうちぬ		SDWA
ADDRESS	402 TACKSON	N STREET	2	SAMPLE	SAMPLE LOCATION	AMI			NPDES
				COLLEC	COLLECTED BY:	Fred			RCRA
N-5-201111						ANALYSIS REQUESTED			отнея
CONTACT	PRANCE P.	JSRY		AND THE PERSON NAMED AND THE P		ALLA CANADA DE CANADA (CANADA CANADA	Application of the control of the co	MILEON AND THE PROPERTY OF THE	
TELEPHONE				(				,	QUOTE
PO NUMBER				ĩ∀.	10- E		·		
	METHOD SAMPLE	CONTRACTOR OF THE PROPERTY OF	30#	97	#2 #2				LAB USE ONLY
SAMPLE ID #	GR CDMP TYPE	DATE TIME	AE BOTTLES	,	) )o				# 507
1A Closone	Section	4/26/46 7:33	- E						
; V)	7		٠						11.12.14.25.5
2.A "	>		-						Physical Section
25 (1	2		,						11 S C 1 C C
3.4 11	7		-						3 2774. 979
36 11	7	5	}						111 211 24
COMMENTS:	C	4072	12	BAN S	gcHROME.				
SAMBLE RELINGUISHED BY	NUISHED BY:	p.	DATE/TIME		SAMPLES	SAMPLES RECEIVED BY	OATE	04E/TIME 7:30	REQUESTED DUE DATE
SAMPLE RELINQUISHED BY:	JUISHED BY: 🖊		DATE/TIME	<u></u>	SAMPLES	SAMPLES RECEIVED BY:	бате	бате/тіме	RUSH: YES NO
SAMPLES RECEI	SAMPLES RECEIVED IN LAB BY:	9	Chri	(NE	TIME /3	1355 DATE 4129/90	9/96		
TERMS & CONDITIONS  1. Minimum invoice amount is \$25,00	ITIONS								

- Payment terms ara NET 30 Days with approved credit. A 2% discount is available for payments within 10 Days. Past due invoices are subject to a finance charge.
- Submission of Chain of Custody and samples constitutes an agreement to perform tha analysis and the client agrees to pay for any analyses completed prior to a notification "not to proceed".
  - Samples found to be "hazardous" will be returned to the client for disposal. Radioactive samples will not be accepted.
- Complex samples may incur an additional prap charge. Client will be notified before lab proceeds. 21 62 4 72 60 7
- The fee structure reflects our normel QC/QA protocol. Additional QC/QA will require a surcharga.
- TURNAROUND TIME (TAT) is usually one week or less. Every effort will be made to accommodate RUSH samples. Additional charges, up to 100%, may be added depending on the time requirements. ADVANCE NOTIFICATION OF RUSH SAMPLES IS APPRECIATED!
  - Confidentiality of ell data and customer information is strictly adhered to by Lookwood Laboratories end Springfield Environmental. ല റ
- Samples will be analyzed in accordance with approved & standard test procedures to tha best of our ability. Lockwood Laboratories, however, cannot be held responsible for the representativeness of the sample. In no event shall Lockwood Laboratories be held liable for the consequences of the data reported end its use, and shall be liable only for the monetary value of the tests.

APPENDIX "F" CORRESPONDENCE

P.O. Box 1049, 1800 WaterMark Dr. Columbus, Ohio 43266-0149 (614) 644-3020 FAX (614) 644-2329 George V. Voinovich
Governor

Donald R. Schregardus Director

#### NOTICE OF DEFICIENCY

NOV 2 3 1994

CERTIFIED MAIL

November 25, 1994

RE: CLOSURE PLAN
Design Original, Inc.
OHD 063 989 545

Design Original, Inc. Attn. Mr. Frank Pusey 402 Jackson Street Jackson Center, Ohio 45334-0813

Dear Mr. Pusey:

On May 11, 1994, Ohio EPA received from Design Original, Inc. a closure plan for a hazardous waste disposal area, an unpermitted disposal unit located at 402 Jackson Street, Jackson Center, Ohio.

This closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that Design Original Inc.'s proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan in accordance with OAC Rule 3745-66-12. The public comment period extended from June 6, 1994 through July 15, 1994. No public comments were received by Ohio EPA.

Pursuant to OAC Rule 3745-66-12(D)(4), I am providing you with a statement of deficiencies in the plan, outlined in Attachment A.

Please take notice that OAC Rule 3745-66-12 requires that a modified closure plan addressing the deficiencies enumerated in Attachment A be submitted to the Director of the Ohio EPA for approval within thirty (30) days of the receipt of this letter.

Mr. Frank Pusey Design Original, Inc. Page Two

The modified closure plan shall be in accordance with the following editorial protocol or convention:

- 1. Old language is over-struck, but not obliterated.
- 2. New language is capitalized.
- 3. Page headers should indicate date of submission.
- 4. If significant changes are necessary, pages should be re-numbered, table of contents revised, and complete sections provided as required.

The modified closure plan should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attention: Tom Crepeau, Data Management Section, P.O. Box 163669, Columbus, Ohio 43216-3669. A copy should also be sent to: Chris Budich, Ohio EPA, Southwest District Office, 401 East Fifth Street, Dayton, Ohio 45402.

Upon review of the resubmitted plan, I will prepare and issue a final action approving or modifying such plan. If you wish to arrange a meeting to discuss your responses to this Notice of Deficiency, please contact Chris Budich at (513) 285-6094.

Sincerely,

Donald R. Schregardys

Director

DRS/cb

cc: Tom Crepeau, OEPA, DHWM Central File
Montee Suleiman, OEPA, DHWM
Harriet Croke, Ohio Permit Section, USEPA, Region V
Chris Budich, OEPA, Southwest District Office
George Momirov, Regency Environmental

#### ATTACHMENT A

#### DESIGN ORIGINAL, INC. HAZARDOUS WASTE DISPOSAL AREA

#### OHD 063 989 545

#### **SPECIFIC COMMENTS:**

- 1. The closure plan must include a statement acknowledging the requirement for closure certification by both the owner\operator and an independent registered engineer licensed in Ohio pursuant to Ohio Administrative Code (OAC) section 3745-66-15. The owner\operator statement must include the exact wording found in OAC section 3745-50-42(D).
- 2. On page 1, section 1.3, the closure plan specifies the dimensions of the area to be closed as 20 feet long by 16 feet wide. On page 6 of the closure plan, the Remediation Site Plan, the area to be closed is shown to be 20 feet by 15 feet. Page 6 of the Remediation Site Plan also indicates that toluene was detected in samples D-4 and D-8 but this area is not included in the area to be closed. The closure plan does not explain how the boundaries for the contamination area were established. Design Originals, Inc. must provide additional information to adequately define the extent of contamination at the site. This information must be provided pursuant to OAC 3745-66-12.
- On page 2, section 1.3, the closure plan states that concentrations of chrome and lead are nearly all within natural background ranges and would not be of concern in this remediation project. On page 19 of the closure plan, an excerpt from ERM-Midwest Inc.'s report of May 21, 1991, samples D-1 and D-5 were shown to have concentrations of lead and chromium, respectively, above background levels as established in "Background Levels of Heavy Metals in Ohio Farm Soils", 1983, Research Circular 275, Ohio State University, Wooster, Ohio which was used as a reference in the closure plan. Design Original shall revise the closure plan to address the clean-up standards for lead and chromium; either use Ohio Farm Soils which is 29 mg/kg for lead and 20 mg/kg for chromium, or establish on-site background standards. These levels of lead and chromium must be addressed in the closure plan pursuant to OAC 3745-66-12(B)(4).
- 4. On page 10, section 3.5 of the closure plan it states that "standard procedure" will be followed to decontaminate equipment used in the project. Design Original, Inc. must provide a detailed description of the decontamination steps

pursuant to OAC 3745-66-12(B)(4).

5. On pages 22-29 of the closure plan, laboratory results are provided for three samples collected July 28, 1993 and a trip blank. These results indicate the detection of methylene chloride, chlorobenzene, xylene, acetone, methyl isobutyl ketone, methyl ethyl ketone, and benzene. None of these organic constituents were detected in the trip blank. These constituents must be addressed in the closure plan pursuant to OAC 3745-66-12(B)(2).

END OF CLOSURE COMMENTS



State of Ohio Environmental Protection Agency

Southwest District Office

401 East Fifth Street Dayton, Ohio 45402-2911 (513) 285-6357 FAX (513) 285-6249

George V. Voinovich Governor

October 19, 1995

RE: DESIGN ORIGINAL

HAZARDOUS WASTE SHELBY COUNTY OHD 063 989 545

Mr. Frank Pusey, President Design Originals, Inc. 402 Jackson Street Jackson Center, Ohio 45334

Dear Mr. Pusey:

As discussed during our meeting at your facility on October 6, 1995, Design Original has yet to respond to Ohio EPA's Notice of Deficiency dated November 25, 1994 regarding the closure plan submitted May 11, 1994. Ohio EPA is aware that the consulting firm that wrote the plan is no longer in business. While Ohio EPA understands the difficulty this has caused Design Original in responding to the NOD, it is felt that Design Original has had a sufficient amount of time to contract the services of another environmental consultant to complete this project.

Given the situation and the concern you expressed during our meeting regarding your desire to resolve this issue, Ohio EPA is willing to grant an extension to the deadline for the submittal of your revised closure plan. However, this will be the final extension. If Design Original fails to submit a revised closure plan before December 1, 1995 this matter will be referred to Ohio EPA's Central Office for escalated enforcement.

Enclosed are copies from the 1994-1995 Dayton Area Ameritech Yellow Pages which include various environmental service firms. Ohio EPA hopes that this will assist you in your effort. Should you have any questions concerning the above, please contact me at (513) 285-6083.

Sincerely,

Christopher M. Budich

Division of Hazardous Waste Management

Christopher M. Budich

CMB/ms

Enclosure

cc: Montee Suleiman, CO, DHWM

Laurie Stevenson, CO, DHWM



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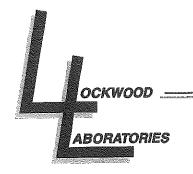
Addressee's Address Domestic Return Receipt 2. 

Restricted Delivery Consult postmaster for fee. 8. Addressee's Address (Only if requested and fee is paid) also wish to receive the following services (for an extra fee); Thate of Deliverings 4b. Service Type Complete items 1 and/or 2 for additional services.
Complete items 3, 4a, and 4b.
Printin your name and address on the reverse of this form so that we can return this card to you.

Attach this form to the front of the mailpiece, or on the back if space does not permit.

White "Return Receipt Requested" on the malipiece below the article number. The Return Receipt will show to whom the article was delivered and the date 200-0le 43216 P.O. Box 163669 6. Signature: (Addressee or Agen PS Form **3811,** December 1994 5. Received By: (Print Name) is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.



Committed to Providing Quality Analytical Services

OHIO ENVIRONMENTAL PROTECTION AGENCY
Division of Hazardous Waste Management
ATTENTION: TOM CREPEAU, DATA MANAGEMENT SECTION
PO BOX 163669
COLUMBUS, OHIO 43216-3669

Dear Sir:

This is the Closure Plan proposal for Design Original, Inc. in Jackson Center, Ohio. We have attempted to address all the concerns listed in the Notice of Deficiency received in November 1994. Each "Specific Item" is addressed in the text of the plan.

If you should have any questions or wish to discuss this plan, please call me at your convenience.

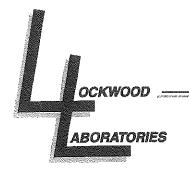
Sincerely,

ames E. Parrish, Environmental Engineer

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Committed to Providing Quality Analytical Services

April 24, 1996

OHIO ENVIRONMENTAL PROTECTION AGENCY DIVISION OF HAZARDOUS WASTE MANAGEMENT SOUTHWEST DISTRICT OFFICE 401 E. FIFTH STREET DAYTON, OHIO 45402-2911

ATT: CHRISTOPHER M. BUDICH

Dear Chris,

We have scheduled the remediation of the Design Original facility in Jackson Center, Ohio to begin on Friday April 26,1996. We will adhere to the Remediation Plan dated November 30, 1996. I plan to fill several roll-off units with the removed soil and test composite samples from each one for TCLP metals, volatiles and semi-volatiles to determine final disposition of each.

Should you have any questions or wish to discuss the plan, please call me at your convenience.

Sincerely,

ames E. Parrish, Environmental Engineer

- 5) All non-essential personnel will be removed from the area until the emergency is under control. Project personnel will meet at the street near the railroad tracks, until the Project Manager determines it is safe to resume work.
- 6) The Project Manager will ensure all contaminated wastes from emergency personnel are collected and contained after the emergency is brought under control. (Tyvek suits, gloves absorbents etc.)
- 7) The Project Manager and the Facility Manager will ensure that all on-site equipment is restored to pre-emergency condition before remediation is continued.
- 8) The Project Manager and the Facility Manager will investigate the cause of the emergency and provide an irreversible solution to prevent a reoccurrence.

#### SITE SAFETY PLAN ACKNOWLEDGMENT FORM

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State of Ohio Environmental Protection Agency

Syreet address:

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1800 WaterMark Drive Columbus, OH 43215-1099 TELE: (614) 644-3020 FAX: (614) 644-2329

P.O. Box 1049 Columbus, OH 43216-1049

#### CLOSURE PLAN APPROVAL

CERTIFIED MAIL

Re: CLOSURE PLAN APPROVAL

DESIGN ORIGINAL OHD063989545

May 10, 1996

- Mr. Frank Pusey, Owner -Design Original, Inc. 402 Jackson Street Jackson Center, Ohio 45334-0813 To: Jim Parrish From Frank Pusey

Dear Mr. Pusey:

On May 11, 1994, Design Original, Inc. submitted to Onio EPA a closure plan for a Hazardous waste disposal area, an unpermitted storage unit located at 402 Jackson Street, Jackson Center, Ohio. Revisions to the closure plan were submitted on December 7, 1995 and December 19, 1995. The closure plan was submitted pursuant to Rule 3745-66-12 of the Ohio Administrative Code (OAC) in order to demonstrate that Design Original, Inc.'s proposal for closure complies with the requirements of OAC Rules 3745-66-11 and 3745-66-12.

The public was given the opportunity to submit written comments regarding the closure plan of Design Original, Inc., in accordance with OAC Rule 3745-66-12. No comments were received by Ohio EPA in this matter.

Based upon review of Design Original, Inc.'s submittal and subsequent revisions, I conclude that the closure plan for the hazardous waste facility at 402 Jackson Street, Jackson Center, Ohio meets the performance standard contained in OAC 3745-66-11 and complies with the pertinent parts of OAC Rule 3745-66-12.

The revised closure plan submitted to Ohlo EPA on December 19, 1995 by Design Original, Inc. is hereby approved.

Please be advised that approval of this closure plan does not release Design Original, Inc. from any responsibilities as required under the Hazardous and Solid Waste Amendments of 1984 regarding corrective actions for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit.

I certify this to be a true and accurate copy of the official document as filed in the records of the Onio Environmental Protection Agency.

OHIO E.P.A. :

MAY 10 96

ENTERED DIRECTOR'S JOURNAL

George V. Volnovich, Governor Nancy P. Hollister, Lt. Governor Donald R. Schregardus, Director Closure Plan Approval Design Original Page 2

Notwithstanding compliance with the terms of the closure plan, the Director may, on the basis of any information that there is or has been a release of hazardous waste, hazardous constituents, or hazardous substances into the environment, issue an order pursuant to Section 3734.20 et seq of the Revised Code or Chapters 3734 or 6111 of the Revised Code requiring corrective action or such other response as deemed necessary; or initiate appropriate action; or seek any appropriate legal or equitable remedies to abate pollution or contamination or to protect public health or safety or the environment.

Nothing here shall waive the right of the Director to take action beyond the terms of the closure plan pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499 ("CERCLA") or to take any other action pursuant to applicable Federal or State law. including but not limited to the right to issue a permit with terms and conditions requiring corrective action pursuant to Chapters 3734 or 6111 of the Revised Code; the right to seek injunctive relief, monetary penalties and punitive damages; to undertake any removal, remedial, and/or response action relating to the facility; and to seek recovery for any costs incurred by the Director in undertaking such actions.

You are notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, Ohio 43266-0557.

When closure is completed, the Ohio Administrative Code Rule 3745-56-15 requires the owner or operator of a facility to submit to the Director of the Ohio EPA certification by the owner or operator and an independent, registered professional engineer that the facility has been closed in accordance with the specifications in the approved closure plan. These certifications shall follow the format specified in OAC 3745-50-42(D), and should be submitted to: Ohio Environmental Protection Agency, Division of Hazardous Waste Management, Attention: Tom Crepeau, Data Management Section, P.O. Box 1049, Columbus, Ohio 43216-1049.

Sincerely

Bonald R. Schregardus

Director

cc:

I certify this to be a true and accurate copy of the official document as filed in the records of the Ohio Environmental Protection Agency.

Date 5/10/96

Tom Crepeau, OEPA, DHWM Central File

Montee Suleiman, OZPA, DHWM, CO

Harrlet Croke, Ohio Permit Section, USEPA, Region V Harold O'Connell, OEPA, Southwest District Office

James Parrish, Springfield Environmental, Inc.

OHIO E.P.A.

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ENTERED DIRECTOR'S JOURNAL

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# OCKWOOD \_\_\_\_

## Certificate of Analysis

ATTN CHRISTOPHER M BUDICH
OHIO ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF HAZARDOUS WASTE MANAGEMENT
SOUTHWEST DISTRICT OFFICE
401 E FIFTH ST
DAYTON OH 45402-2911

May 15, 1996

Re: Design Originals

Jackson Center, Ohio

Dear Chris,

Springfield Environmental, Inc. has conducted a soil remediation on a print shop VOC mixture located at Design Originals, Jackson Center, Ohio. Per the approved Closure Plan, the soil that had been excavated for disposal, was analyzed for TCLP Volatiles. Recently, you had a telephone conversation with Jim Parrish of Springfield Environmental, Inc. and indicated that you would like to see the analytical results for Total Volatiles. I have analyzed the sample retains, from the Design Original roll-offs, for Total Volatile Organic Compounds (SW846-8240). All results were below detection, with the exception of Box #6, which contained 300 ug/kg of Toluene. Box #6 has been previously moved off site. Since the remaining Boxes do not have any detectable amounts of VOC, I would like clearance to send the Boxes to Cherokee Run Landfill.

If you need any additional information about the attached analytical results, please call me at 1-800-308-8001.

Respectfully,

Ed Lockwood Jr.

President

I we closure Report
I welve paragraph
ABOUT MISCOMMUNICATION
AND HAZ WASTE GOING
TO Chenokee Run by
MISTAKE,

PER GED CHRIS SED 5/21/96 201 E. Columbus Ave. P.O. Box 338 Ballerontaine, Ohio 43311 513-559-6161



January 10, 1996

Ohio EPA

Attn: Chris Budich Southwest Office

Dear Mr. Budich:

This letter is to inform you that Frank Pusey of Design Original in Jackson Center, Ohio is a customer of American Community Bank, N.A. After a conversation with Mr. Pusey about a current cleanup project, I feel he has resources thru this bank to cover the cost of the project.

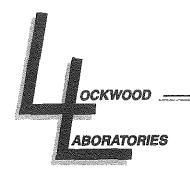
Sincerely,

Jon L. Williman

Jon L. Willman

Assistant Vice President

Commercial Loan Officer



Committed to Providing Quality Analytical Services

RAY HARRIS LAIDLAW WASTE SYSTEMS 400 S TECUMSEH ROAD SPRINGFIELD OH 45506

May 17, 1996

Dear Ray,

I delivered the Design Original laboratory reports to Chris Budich of the Ohio EPA Southwest District Office. Chris acknowledged that Design Originals was not given a Notice of Determination stating that the waste soil was F005 and that he did not pick up on the fact we were not treating it as a listed waste, as the Agency desired, until it was top late. Chris will be sending a letter to Design Originals explaining that a miscommunication had occurred and what actions must happen. Chris explained that while he could not guarantee there would not be a problem from Columbus, it would be Southwest District Office's recommendation, to Columbus, to take no action and close the file.

Furthermore, Chris verbally approved the remaining two roll-offs going to Bellefontaine for disposal. If you would like to speak with Chris on the situation, his number is 513-285-6094.

Respectfully,

Ed Lockwood Jr.

President

APPENDIX "G" PHOTOGRAPHS TAKEN DURING EXCAVATION

#### List of Photos Soil Remediation - Design Original Jackson Center, Ohio



1. Design Original - pre remediation. Area of remediation is in vicinity of the backhoe. April 26, 1996



2. Beginning excavation. April 26, 1996



3. Excavation at Design Original. Note depth of gravel. Sanitary sewer line clean out is white stickup. April 26, 1996



4. Excavation of soil at Design Original. Soil stayed on ground before being placed in lined roll off boxes. April 26, 1996



5. Arrival of two more roll off boxes. Boxes were lined prior to placement of soil. April 26, 1996



6. Completed excavation near north addition to building. Note covered roll off box. April 26, 1996



7. Excavation in area of sewer line. April 26, 1996



8. Sewer line exposed at 3 feet depth (and ruptured) by backhoe. Note covered roll off box. April 26, 1996



9. Continues excavation in area of sewer line. April 26, 1996



10. Sewer line eventually removed and excavation continued until approximately8 - 9 feet deep in this location . April 26, 1996

APPENDIX "H" WASTE DISPOSAL MANIFESTS



May 30, 1996

Jim Parrish Springfield Environmental Springfield, OH

Dear Jim,

The Special Waste Stream referenced below has been approved for disposal at Stony Hollow RDF. Please note the following information:

Generator:

Design Original Incorporated

Waste Stream:

Contaminated Soil

Profile No.: Expiration Date: 416798 05/01/97

Special Handling:

No free liquids. No characteristic waste.

All analytical results submitted to Stony Hollow Recycling and Disposal Facility must be based on a representative sample taken in accordance with 40 CFR 261.20 (c) or equivalent rules.

If a service agreement is enclosed, please sign and return to my attention.

Thank you for using Stony Hollow RDF for your disposal needs. If you have any questions, or future waste streams needing disposal, please feel free to contact me.

Sincerely,

STONY HOLLOW RECYCLING AND DISPOSAL FACILITY

Susan J. Klenke

Special Waste Sales Representative



#### **GENERATOR'S WASTE PROFILE SHEET**

PLEASE PRINT IN INK OR TYPE

Waste Profile Sheet Code

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his form is to be used to comply with the requirements of a waste agreement.	
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ontractor Sales Rep#:	Service Agr. Renewal Date: / /
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Generator Usepa/Fodoral ID #: OHD 96378 9545	7. State/Province ID #:
Technical Contact:	MARRISH 9 Phone: (6
WASTE STREAM INFORMATION (See Instructions)	(513)324 - Bear
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## GENERATOR'S WASTE PROFILE SHEET

PLEASE PRINT IN INK OR TYPE

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Please note: L	Inless analytical results are	attached, the chemical composition	n identification should it	nclude, at a minimum	Arsenic, Barium,
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		zards in the possession of the Ga			ahad isaas ations fee
		ds the Contractor's Definition of S es provided in incidental amounts			
		es provided in incluental amounts or attached hereto were derived fr			
	/ 1	st stractied hereto were delived it	om tasmið a tehlesem	alive sample taken i	n accordance with
	1.20(c) or equivalent)rules.	of the waste, the Generator shall r	solify the Contractor or	ior to providing the w	note to the Contracts
o. Ir any chang	les occur in ine character o		and A	or to browning rue w	aste to the Contracti
7. Signature	tumo 2 Muni	4 sa tantos	8 Tritle OW	wev-	Maria Caracapopa Carac
9. Name (Tvoe	or Print) STAMES	E VANUBU	10. Date5	24/96	4.400.000
Side 2 of 2 WMS X 1951 1965 9	3:	•		s	

LAID	
WASTE SYSTEMS	CHERO: SELL

Post-It' Fax Note	7671	Date 6 20 96 pages 6
TO PAR	154	From NORM. YANTI
Co./Dopt. 5 PRINGFIEL!	O ENV.	C. A. W. T.
Phone #	***	Phone # 663-5506
Fax # 513.324	1.5185	FRX# 663-5698

NON-HAZARDOUS	SPECIAL	WASTE	MANIFEST
			TOUR DE NOTE OF THE PARTY OF TH
SPECIAL WASTE ACC	GENERATOR EPTANCE APPLICATION NO.	8320	
GENERATOR NAME		TOR LOCATION	
ADDRESS Springfield		T	son Street
1001 East Si Springfield,	ADDRES	<u>Jackson</u>	Center, OH
Carlotte Anna		n man de la la la la la la la la la la la la la	
PHONE NO. 513-324-800	PHONE ?	10.	
*** *** ******************************	EMERGE	NCY PHONE 513-324	-8001
DESCRIPTION OF W		QUANTITY	UNITS
<u>contaminated soil</u>	5	20 yd	1
hereby certify that the about	e named material does not contr	olo trea limite se defined by An	CFR Part 280 10
or any applicable state law, is	not hazardeus er medical wasts	as defined by 40 CFR Part 281	or any applicable
sista lew, has been properly according to applicable regu	described, classified, and packs	ged, and is in proper condition	for transportation
second in makingging colly		for James E	. Parrish
James E. Parrish			ONL AVI
meretor Authorized Agent Name		Signature	Marie Contraction of the Contrac
	TRANSPORTER	2	
18	TRANSPORTER		663 5506
TRUCK NO. 18	TRANSPORTER	PHONE NO. 513	-663 <b>-</b> 5506
AUCK NO.	TRANSPORTER	PHONE NO. 513	-663 <b>-</b> 5506
TAUCK NO. 19	TRANSPORTER	PHONE NO. 313	
TRANSPORTER NAME	TRANSPORTER	PHONE NO. 513  DRIVER NAME (print)  Vernon P	BECOCK
TRANSPORTER NAME		PHONE NO. 313	енсоск
RANSPORTER NAME  A.W.T. Tra  Services,  346 N. St. Rt	nsrer Inc.	PHONE NO. 513  DRIVER NAME (print)  Vernon P	BECOCK
TRANSPORTER NAME  ADDRESS A.W.T. Tra	nsrer Inc.	DRIVER NAME (MINI)  VERNOR P  VEHICLE LICENSE NO	BECOCK DISTAIL
ADDRESS A.W.T. Tra	nsrer Inc. 235 43072 was picked   hereb	PHONE NO. 513  DRIVER NAME (print)  VERNON P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT  Verify that the above name	BBCOCK  ASTATE  ON  d meterial was delivered
ADDRESS A.W.T. Transporter NAME  ADDRESS Services,  346 N. St. Rt St. Paris, Of the street of the st	Inster Inc. 235 43072 was picked I hereb	PHONE NO. 513  DRIVER NAME (print)  VERNOR P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT  Verify that the above name incident to the designession list	ERCOCK  ON  d meterial was delivered and below.
ADDRESS A.W.T. Tra Services, 346 N. St. Rt St. Paris, Of thereby certify that the above material s at the generator at letted above	nsrer Inc. 235 43072 was picked   hereb	PHONE NO. 513  DRIVER NAME (print)  VERNOR P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT  Verify that the above name incident to the designession list	BBCOCK  /STATE ON  d meterial was delivered
TRANSPORTER NAME  ADDRESS  A.W.T. Transport  Services,  346 N. St. Rt  St. Paris, Of the shows material at the generator at letted above.	Inster Inc. 235 43072 was picked I hereb with guy. 5-10-96	PHONE NO. 513  DRIVER NAME (print)  VECTION P  VEHICLE LICENSE AK  VEHICLE CERTIFICAT  VEHICLE CERTIFICAT  VEHICLE CERTIFICAT  VEHICLE CERTIFICAT	ERCOCK  ON  d meterial was delivered and below.
ADDRESS A.W.T. Tra Services, 346 N. St. Rt St. Paris, Of thereby certify that the above material s at the generator at letted above	Inster Inc. 235 43072 was picked I hereb with guy. 5-10-96	PHONE NO. SITE OF THE PHONE NO. SITE OF THE	BECOCK  JSTATE  ON  d meterial was delivered sol below.
TRANSPORTER NAME  ADDRESS A.W.T. Tra  Services,  346 N. St. Rt  St. Paris, Of  thereby certify that the above material  of the generator of letted above	Inster Inc. 235 43072 was picked I hereb with guston Driver	PHONE NO. SIDE PHONE NO. SIDE PHONE NO. SIDE PHONE NO. SIDE PHONE	BECOCK  JSTATE  ON  d meterial was delivered sol below.
TRANSPORTER NAME  ADDRESS  A.W.T. Transport  Services,  346 N. St. Rt  St. Paris, Of  thereby certify that the above material part the generator at letted above	Inster Inc. 235 43072  was picked I hereby with guy- Date DESTINATION CHEROKEE RUN L/ 2946 U.S. Rtc. 68	PHONE NO	BECOCK  JANA  ON  d material was delivered sol below.
TRANSPORTER NAME  ADDRESS  A.W.T. Transport  Services,  346 N. St. Rt  St. Paris, Of the shows material at the generator at letted above.	Inster Inc. 235 43072  was picked I hereb withgut for the Destination Cherokee Run La	PHONE NO. 513  DRIVER NAME (print)  VERNOR P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT	BECOCK  JANA  ON  d meterial was delivered sol below.
TRANSPORTER NAME  ADDRESS  A.W.T. Transport  Services,  346 N. St. Rt  St. Paris, Of  thereby certify that the above material part the generator at letted above	hster Inc. 235 43072  was picked   hereb with guston bate   Driver  DESTINATION CHEROKEE RUN LA 2948 U.S. Rtc. 68 Belleforteine, Logan County	PHONE NO. 513  DRIVER NAME (print)  VERNOR P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT	BECOCK  JANA  ON  d material was delivered sol below.
RANSPORTER NAME  DDNESS A.W.T. Tra  Services,  346 N. St. Rt  St. Paris, Of  ereby certify that the above material at the generator size lieted above.	hster Inc. 235 43072  was picked   hereb with guston bate   Driver  DESTINATION CHEROKEE RUN LA 2948 U.S. Rtc. 68 Belleforteine, Logan County	PHONE NO. 513  DRIVER NAME (print)  VERNOR P  VEHICLE LICENSE NO  VEHICLE CERTIFICAT	BECOCK  JSTATE  ON  d meterial was delivered sol below.

# LA DI DE LA CHERE

Cherokee Run Landfill Bellefontaine, Ohio

	SPECIAL	WASTE	MANIFEST
	GENERATOR		
SPECIAL WASTE ACCEPTANCE	APPLICATION NO.	83203	
GENERATOR NAME	GENERATO	R LOCATION	
Compariald Con	_	402 .6	ickson Street
ADDRESS Springfield Env. 1001 Fast Street	ADDRESS		on Center, OH
Springfield, OH	- [ADDRESS]		
- The state of the	- pr	٦	· · · · · · · · · · · · · · · · · · ·
PHONE NO. 513-324-8001	- PHONE NO.		
	<u> </u>		324-8001
	- EMERGENC	Y PHONE	724-0001
A Land Control of the	***************************************		
DESCRIPTION OF WASTE		QUANTITY	UNITS
contaminated soil		20 yd	1
Add to the add to the state of	· · · · · · · · · · · · · · · · · · ·		WE THE STATE OF TH
I hereby certify that the above named	remieral dame and rest-1-	leas liquid on Jelland L.	AR FEB BALL REALS
or any applicable state law, is not haze			
state law, has been properly described			
according to applicable regulations.		₹₹ <b>~</b> \$ ~	- T
France B Barriok			E. Parrish
James E. Parrish		- Darmon !	
	TRANSPORTER	- Darmon !	E, Parrish
Generator Authorized Agent Name	TRANSPORTER	Signature	
Generator Authorized Agent Name	TRANSPORTER	Signature	fantis A.W.T.
Generator Authorized Agent Name	TRANSPORTER	Signature	513-663-5506
TRUCK NO. 18	TRANSPORTER	Signature  PHONE NO.  DRIVER NAME (pri	513-663-5506
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer	TRANSPORTER	Signature  PHONE NO.  DRIVER NAME (pri	513-663-5506 Peacock
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services Inc.		PHONE NO.  DRIVER NAME (pri  VERNOR  VERNOR	513-663-5506 Peacock
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services Inc.		Signature  PHONE NO.  DRIVER NAME (pri	513-663-5506 Peacock
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services, Inc.		PHONE NO.  DRIVER NAME (pri  VERNOR  VERNOR	513-663-5506 Peacock
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services. Inc. 346 N. St.RT. 23 St. Paris, OH 43  hereby certify that the above material was picke	5 072 d 1 hereby	PHONE NO.  DRIVER NAME (pri  VERICLE LICENSE  VEHICLE CENTIFIC  certify that the above no	513-663-5506  Teacock NO,STATE  A.M. F.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services, Inc. 346 N. St.RT. 23 St. Paris, OH 43	5 072 d 1 hereby	PHONE NO.  DRIVER NAME (pri  VERICLE LICENSE  VEHICLE CEMTIFIC	513-663-5506  Teacock NO,STATE  A.M. F.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer  Services, Inc.  346 N. St.RT. 23  St. Paris, OH 43  hereby cortify that the above material was picked at the generator site listed poors.	072 d 1 hereby	PHONE NO.  DRIVER NAME (pri  VERTOR  VEHICLE LICENSE  VEHICLE CEMIFIC  certify that the above recident to the designation	Peacock NO/STATE A.M. I.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer  Services, Inc.  346 N. St.RT. 23  St. Paris, OH 43  hereby cortify that the above material was picked at the generator site listed poors.	5 072 d 1 hereby	PHONE NO.  DRIVER NAME (pri  VERTOR  VEHICLE LICENSE  VEHICLE CEMIFIC  certify that the above recident to the designation	513-663-5506  Teacock NO,STATE  A.M. F.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services, Inc. 346 N. St.RT. 23 St. Paris, OH 43  hereby cortify that the above material was picked at the generator site listed above.	072 d 1 hereby	PHONE NO.  DRIVER NAME (pri  VERTOR  VEHICLE LICENSE  VEHICLE CEMIFIC  certify that the above recident to the designation	Peacock NO/STATE A.W. T.  A.W. T.  STOR
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer  Services, Inc.  346 N. St.RT. 23  St. Paris, OH 43  hereby cortify that the above material was picked at the generator site listed poors.	d I hereby withdux in Driver S  DESTINATION  CHEROKEE RUN LAN	PHONE NO.  DRIVER NAME (pri VERICLE LICENSE VEHICLE CENTIFIC certify that the above no cident to the designation Signature	Peacock NO/STATE A.M. I.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services. Inc. 346 N. St.RT. 23 St. Paris, OH 43  hereby cortify that the above material was picked at the generation site listed prove.	d thereby without in Driver S	Signature  PHONE NO.  DRIVER NAME (pri VERICLE LICENSE  VEHICLE CENTIFIC  certify that the above recident to the designation  Signature  DFILL orth	Peacock NO/STATE A.M. I.
TRUCK NO. 18  TRANSPORTER NAME  ADDRESS A.W.T. Transfer Services. Inc. 346 N. St.RT. 23 St. Paris, OH 43  hereby curtify that the above material was picked at the generated site listed proventing at the gen	DESTINATION CHEROKEE RUN LAN 2946 U.S. Rue. 68 Nonteine, Logen County,	Signature  PHONE NO.  DRIVER NAME (pri VERICLE LICENSE  VEHICLE CENTIFIC  certify that the above recident to the designation  Signature	Peacock NO/STATE A.M. I.



Cherokee Run Landfill Bellefontaine, Ohio

NON-HAZARDOUS	SPECIAL	WASTE	MANIFEST
51.1 10000000000000000000000000000000000	GENERATOR		Andrew Williams
SPECIAL WASTE ACCEPTANC	E APPLICATION NO.	8)20)	** ^ \ ********************************
GENERATOR NAME	GENERATO	A LOCATION	
ADDRESS Springfield Env.			kson Street
1001 East Street	ADDRESS		Center, OH
_Springfleld, OH_		<del></del>	
PHONE NO.	PHONE NO	1.	
513-324-8001	PHONE NO		
	- EMERGENC	Y PHONE 3 32 32 34	24-8001
DESCRIPTION OF WASTE		QUANTITY	LUNITS
contaminated coil		20 yd	1
A CONTRACTOR OF THE PARTY OF TH			
according to applicable regulations.			Ę. Parrish
James E. Parrish		Marmon C.Y	
Generator Authorized Agent Name	•	Signature:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
n, ti di d <del>ing dan bigan ang makananan mananan ang ti minanan manananan mananan mananan mananan mananan a</del> nan man	TRANSPORTER	The state of the s	
160 CM NC) In 18			CCO Proc
THUCK NO.		PHONE NO. 51	סטללייניסס-נ
TRANSPORTER NAME		DRIVER NAME (print)	
	- <b>-</b>	Yervon F	eacock
ADDRESS A.W.T. Transfer		VEHICLE LICENSE N	OJSTATE
Services, Inc. 346 N. ST. RT. 2	፻፯ና	VICTIONE APPRICA	70.11
Saint Paris, OH		VEHICLE CERTIFICA	HON
	4	نمونل فرید است متعدد	:
hereby certify that the above material was pick-	ad I herroy r	certify that the above nam	ed majerial was delivered
	- 11-06 Allgovi inc	cident to the yeagnation li	iled follow.
Quince Ruck	-11 1 1/13/12 A	425 1-1: 15-CO-	15 7 17 7
Oriver Signature Date	Driver S	ignature	Da <i>te</i>
	DESTINATION		· · · · · · · · · · · · · · · · · · ·
	CHEROKEE RUN LAN	DFILL	
	2946 U.O. Rie. 68 No	orth .	
10 1 m 13	innisine, Logen County, ./ (513) 593-3566	Ohla 43311	
Grown Cheerent	1 1.1.	Valla Valla	rollo Klub
KIND JUKETIN	<u> </u>	vyi'ke Kellic	eccy single
Authorized Agent (print)		Agent Signature	U Date

CHEROKEE RUN LANUFILL BELLEFONTAINE, OHIO

	NIFEST
GENERATOR	
SPECIAL WASTE ACCEPTANCE APPLICATION NO. 93203	
GENERATOR NAME	
ADDRESS LSPRINGFIFLD FNV 402 JACKSO	V ST.
ADDRESS SPRINGFIELD ENV. 402 JACKSON CENT	
SPRINGELELD, OH	
PHONE NO.	
513-324-80	<u>o</u>
EMERGENCY PHONE	and the second of the second second second
DESCRIPTION OF WASTE QUANTITY UNIT	8 18
CONTAMINATED SOIL 20 Yd.	
The state of the Control of the Cont	
I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part : or any applicable state law, is not hazardeus or medical waste as defined by 40 CFR Part 281 or any app	
state law, has been properly described, classified, and packaged, and is in proper condition for transpo	
eccerding to applicable regulations. デロス ずみかじょ E	۱ ده. ده اه ا
	= : :
Senerator Authorized Agent Name  Signalure	mp
Sandrator Agent Harris	
TRANSPORTER	
TITHING VIIILIY	
TRUCK NO. 513-663	-5506
TRUCK NO. 513 - 663	-5506
	-5506
TRUCK NO. PHONE NO. 513-663  TRANSPORTER NAME (print)	-5506
TRUCK NO	-5506
TRUCK NO	-5506
TRUCK NO. PHONE NO. 513-663  TRANSPORTER NAME  DRIVER NAME (print)  ADDRESS AWT. TRANSFER  VEHICLE LICENSE NO STATE	-5506
TRUCK NO.  TRANSPORTER NAME  DRIVER NAME (print)  DRIVER NAME (print)  VEHICLE LICENSE NO STATE  VEHICLE CENTIFICATION  ST. PARIS, Old  hereby certify that the above material was picked  I hereby certify that the above named material	
TRUCK NO.  TRANSPORTER NAME  DRIVER NAME (print)  DRIVER NAME (print)  VEHICLE LICENSE NO.STATE  VEHICLE CERTIFICATION  Thereby certify that the above material was picked by the designation listed below.	
TRUCK NO.  TRANSPORTER NAME  DRIVER NAME (print)  DRIVER NAME (print)  VEHICLE LICENSE NO ISTATE  VEHICLE CERTIFICATION  ST. PARIS, OH  Thereby certify that the above material was picked up at the generator site listed above.	was delivered  S-11-9
TRUCK NO.  TRANSPORTER NAME  DRIVER NAME (print)  VEHICLE LICENSE NO STATE  VEHICLE CERTIFICATION  ST. PARIS, OH  hereby certify that the above material was picked in at the generator pits listed above.  I hereby certify that the above named material without incident to the designation listed below.	
TRANSPORTER NAME  DRIVER NAME (print)  DRIVER NAME (print)  VEHICLE LICENSE NO ISTATE  VEHICLE CERTIFICATION  ST. PARIS, OH  Thereby certify that the above material was picked up at the generator site fleted above.	was delivered  S-11-9
TRANSPORTER NAME  DRIVER NAME (print)  VEHICLE LICENSE NO STATE  VEHICLE CERTIFICATION  Intereby certify that the above material was picked up at the generator site lieted above.  Driver Signature  Destination  CHEROKEE RUN LANDFILL	was delivered  S-11-9
TRANSPORTER NAME  DRIVER NAME (print)  ADDRESS AW.T. TRANSPER  SFRVICES, INC.  31G. N. 2.35  Vehicle License No. State  Vehicle Centification  I hereby certify that the above material was picked up at the generator site fieted above.  Driver Signature  Dest Inc.	was delivered  S-11-9
TRANSPORTER NAME  DRIVER NAME (print)  VEHICLE LICENSE NO STATE  VEHICLE CERTIFICATION  I hereby certify that the above material was picked up at the generator sits fleted above.  Driver Signature  Deta 1. Page 1.	was delivered  S-11-9
TRANSPORTER NAME  DRIVER NAME (print)  ADDRESS AW.T. TRANSPER  SFRVICES, INC.  31G. N. 2.35  Vehicle License No. State  Vehicle Centification  I hereby certify that the above material was picked up at the generator site fieted above.  Driver Signature  Dest Inc.	was delivered  S-11-9

- <del></del>	No. Megatichile STHAIGHT BILL OF	LADING	, :[:] ::  ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;		Shipper's No.
A.W	T. Transfer Services, Inc.				Estrier's No. 531962
	(None of Cip				
et Jacl	ulers to the classifications and mills in effect on the data of the issue of correct on the data of the issue of	19 96		-	d Environmental, Inc
- Jalika - Arbitet Arbon Strateg - Arbitet in her - English English	when to have an appeared proof order the epice material consequence and constitution of a condition of the matter and proposed managed to the material property and the property makes the transfer to technology or and a few materials are also property over a consider a finite transfer to the full order to the control of the full order to the control of the full order to the full order to the control of the property of the property of the control of the full order to the control of t	organic appears to and the form part of the form of th	on in tratal place of det only tradestionation, and , wheth out MG, d. Sooi	tielig of entelphatication, a as foreign party or now the factor, Wooderer and Hillans	om proper conterente a de medilis er treditis er treditier e attier ce er treche fort in the er atte of entil properts, dialoecopy seasing Theispholika edecution in effect on the date theoret, et phis
Consigned l Destination	Stoney Hollow Landfill 2460 S. Cettysburg State OH		estate.	Belivary Addiese	rect oridinas, at consignae . For purposes of natification on
Roste			~ 1.	Se more see that seems are	Met veniser and Baseiming totals htshop in dought (put )
Delivering C	artier A.W.T. Transfer Services,	Inc.	Car or Vehicle Ini	tials 18	Nn RO-3
					There is a second of the secon
Na. Eackagen	Kind of Frehouse, Concerption of Articles, Special Marks, and Enceptions		"Weight Endines to Correction)	Class Cher or Rate Color	but of hading, if the adaption of we be by delivered. The contents to injust the content on the contents.
	Kind of Free Angle of Articles. Special Marks, and Exceptions  20 cu yd roll-off container		Is aliger to		in but of history, if the disputed is to be delicered
Eackages	20 cu yd roll-off container contaminated soil		Is aliger to		but of hading of the objective was be delivered the configuration without use and or on the configuration to configure the concision what specific rollowing designing. He carrier start use notice delivers of it distincts making assument of height and all of brailed changes.  [Vaporitors of Conceptual]  [It changes for a the normal, who so show here
Eackages	20 cu yd roll-off container		Is aliger to		that of Lating at the shipment was be delivered the southern without term to our it. consigns the consistent spratte softening stagence. The configuration in the design of thingen without assumed to being and all of beaful charges.  [Vapospore of Consequent.]  It charges are after proposal, white or stoop here. To be forguing.
Eackages	20 cu yd roll-off container contaminated soil		Is aliger to		but of hading, if the shipment were be delivered the contingent without use one of an its contingents concingent what typically coldering designing. The contingent without quartic for a risk of discourage the contingent without gavening to beight and all of brailed charges.  [Vagardete of Consequent   It charges are the property of the property of the property of the property of the charges on it property documents at the charges on it property described to every.
Eackages	20 cu yd roll-off container contaminated soil		Is aliger to		but of hading at the disposata was be delivered the continues without use and a run it, continues the concinues distributed to the continues of the continues and the order of the design of the indianent without assument of foright and all of leaded thanges.  [Copulates of Consequent and the continues of the forgate. To be forgated at the property of the changes on the property described become.  Agent in Capitler.
The shipmon of the sh	20 cu yd roll-off container contaminated soil PROFILE NUMBER 416798	g stall state whether a is, in this after some sheether of the state on the charges	(Subject to Correction)		but of hading, if the shipment were be delivered the contingent without use one of an its contingents concingent what typically coldering designing. The contingent without quartic for a risk of discourage the contingent without gavening to beight and all of brailed charges.  [Vagardete of Consequent   It charges are the property of the property of the property of the property of the charges on it property documents at the charges on it property described to every.

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WilsonJones.

Cerbonless Samp-A-Way® Forms ACCO USA, Inc. — Made in U.S.A.

44-301 • Triplicate 44-302 • Guadruplicate

Triginal Not Negotiable

#### STRAIGHT BILL OF LADING

Shippor's Wo

Carrier's No. 531961

A.W.T. Transfer Services, Inc.

(Name of Carrier) 

RECEIVED, subject to the classifications and facility in other on the date of the excus of the Bill of Lading. My Jackson Center, Ohio May 31

From Springfield Environmental, Inc

the property described before in apparent good which except to a rational me and quadrious of goal loger and moved, managed, and destined as radioated below, which said carrier the wead carrier being managed and the order of the anomaly appeared to the property of the p

Consigned to Stoney Hollow Landfill

PH: 513-267-5105 (SUSAN)

2460 S. Gettysburg

State UH Zio

Address &

To be lifted in only when shipper therims and governing totilis gravide for delivers they

loute

Jelivering	Carrier A.W.T. Transfer Services, Inc.	Car or Vehicle Initia	18	No. RO-3
No Packages	Rind of Paskage, Description of Artistes. Special Marke, and Exceptions	(Bulgard to	Ciges ne Anin	ESECR Subject to Section 7 of Conditions of apple, Estimate bill of Rahmy if this Supporting is to be delivery the configure without recursion at the construction
1	20 cu yd roll-Off container			the consigner shall sign the following storain of I'm exister shall not make delivery of a stignment withour physical of treight and all ex- located charges.
	contaminated soil		***************************************	(Signature of Consegura)  If storages are to be prepried, order or chample.  To be Prepriet.
	PROFILE NUMBER 416798			thereised \$ to apply in prepayment of the relatives of propaying progress from a
If the shapari	FOR JIM PARRISH  Comman Commis A.W. T. Parent operation by a content in water by law copies that the billing shall state whether o	LES CHITTELS OF SHIPPEN S D'ORDI	wzn.	Agent in Cachica  For Classian ones been belonged only the man recpaid.  Chaines Advanced:
) NOTE	Where the case is any embers on white, shappens are eliquiest to state of existents in writing the speech in declar during an author of the property to have by specifically stated by the shapper to be not exceeding	and value of the property	سے (_)	1 Shipper's toping in new of stamp; and a pine Bill of Lating approved by the highstare Comme

1 Shipper's injurial in fact of stamp; and a pair will of Indian apported by the Interstate Committee and Stamp.

Springfield Environmental

Jim Parrish Shipper, Per

per

The plane have seed for the children to called up to the specifications set to the best on the best on the second and the other requirements of the Computational Freight.

Agont, Per Norm Yantis Vorn Poacock

tappar, sapida la secrata addition sea la canantos

WilsonJones.

Cathoniese Snep A Way" Futins ACCO VSA. loc. Made in U.S.A. 44-301 - Triplicate 44-302 - Quadruplice